



Enodis

## **COOK/CHILL HORIZONTAL AGITATOR STATIONARY MIXER KETTLES**

### ***Cleveland Standard Features***

- Full 60, 100, 150, 200 or 300 gallon working capacity
- Electrically driven, Horizontal Agitator Mixer Arm
- Variable mixer speed control
- Spring loaded blades scrape entire heated surface area
- Internal mixing fins for most efficient, uniform mixing, heating and cooling
- Flush mounted, easily removable temperature probe
- Simmer control for cooking delicate products
- 3" diameter air operated, flush mounted piston draw-off valve (requires air compressor)
- Spiral flights for even water cooling
- Easily removable agitator without the use of tools
- Spring assist, one piece cover (bifold cover with counterweight for 300 gallon model)
- Heavy duty rim bar
- 100 psi steam jacket rating and safety valve
- Type 316 stainless steel for all food contact surfaces
- Water fill faucet with swing spout
- Kettle mounted valve box for single point utility connections
- NSF approved
- Accepted for use in USDA inspected facilities

***Note: This COOK/CHILL mixer kettle requires a control panel for operation. (Please specify remote mounted control center or kettle mounted control center.)***

### ***Standard Features for Kettle Control Center:***

- Solid State temperature control with digital read-out
- Time/Temperature Chart Recorder to provide permanent record of Batch Processing
- Automatic and manual steam control
- Automatic and manual jacket water cooling
- Simmer control for delicate products
- Automatic water meter with accumulative "add on" button and digital readout
- U.L. approved

### ***Options & Accessories***

- Single or dual remote control center
- Kettle mounted control center (100 gal. and larger)
- Dolly for horizontal agitator
- Stainless steel bifold hinged cover

**MODELS:**

- HA-MKDL-60-CC
- HA-MKDL-200-CC
- HA-MKDL-100-CC
- HA-MKDL-300-CC
- HA-MKDL-150-CC



ITEM NUMBER \_\_\_\_\_

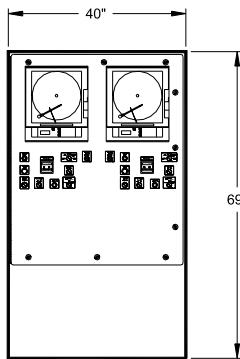
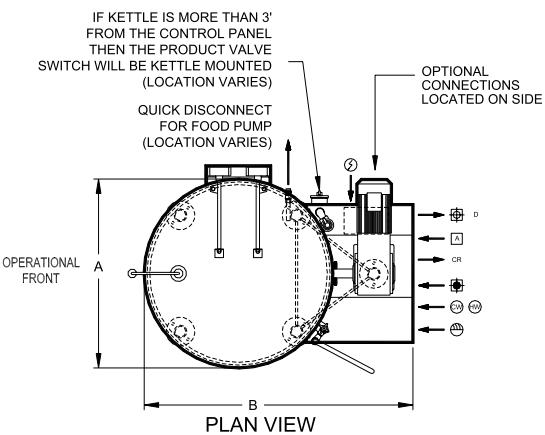
JOB NAME / NUMBER \_\_\_\_\_



### ***Short Form Specifications***

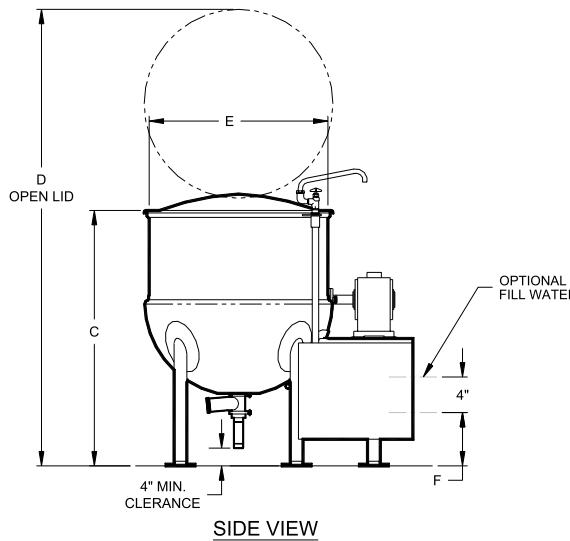
Shall be CLEVELAND Model HA-MKDL-\_\_-CC; COOK/CHILL STATIONARY HORIZONTAL MIXER KETTLE, \_\_ gallons; leg mounted; 2/3 jacketed, direct steam; 100 psi Steam Jacket Pressure Rating; 316 Stainless Steel Liner; electrically driven Horizontal Agitator; Variable Mixer Speed Control; 3" diameter air operated, flush mounted Piston Draw-Off Valve; spring loaded Scraper Blades; flush mounted Temperature Probe; Automatic Water Meter with Digital Readout; Water Fill Faucet with swing spout; Time/Temperature Chart Recorder (located in Control Center); Spring Assist, one piece Cover (bifold cover with counterweight for 300 gallon model).

- Tilting models
- 3" flush mounted ball valve
- Loading bucket and dolly
- Jacket pressure ratings other than standard
- Electric chain hoist for lifting the product load



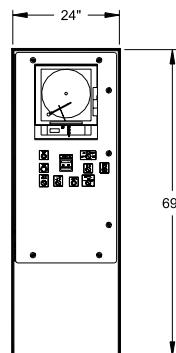
### MINIMUM CLEARANCE FOR KETTLES

|       |     |
|-------|-----|
| FRONT | 36" |
| SIDE  | 12" |
| REAR  | 12" |



NOTE:  
CONTROL PANEL  
DEPTH 18 3/4"

HA-DE-CC2  
DUAL CONTROL PANEL



HA-SE-CC2  
SINGLE CONTROL PANEL

### ELECTRICAL POWER TO AND FROM CONTROL PANEL

- CONTRACTOR MUST CUT ENTRY HOLE
- TOP OR BOTTOM POWER ENTRY RECOMMENDED
- MUST USE PROPER CONNECTIONS TO MAINTAIN U.L. LISTING

## DIMENSIONS

| MODEL          | A        | B       | C       | D    | E       | F   | ELECTRICAL PER KETTLE -<br>208V/3PH/60Hz | R.P.M. |
|----------------|----------|---------|---------|------|---------|-----|--|--------|
| HA-MKDL-60-CC  | 32 1/2"  | 50 3/4" | 47"     | 83"  | 29 1/2" | 8"  | 12 AMPS                                  | 4-25   |
| HA-MKDL-100-CC | 38 5/16" | 57"     | 52"     | 93"  | 35"     | 9"  | 15 AMPS                                  | 3-22   |
| HA-MKDL-150-CC | 43"      | 62"     | 57 1/2" | 101" | 40"     | 9"  | 25 AMPS                                  | 3-20   |
| HA-MKDL-200-CC | 48"      | 65 3/4" | 62"     | 111" | 45"     | 9"  | 25 AMPS                                  | 3-20   |
| HA-MKDL-300-CC | 53"      | 76 3/8" | 67 1/2" | 100" | 50"     | 11" | 30 AMPS                                  | 3-17   |

## UTILITY CONNECTIONS

| MODEL          | CHILLED<br>WATER<br>INLET | CHILLED<br>WATER<br>RETURN | COLD<br>POTABLE<br>WATER | ** HOT<br>WATER | CONDENSATE<br>RETURN | DRAIN  | AIR<br>INLET  | STEAM                 |
|----------------|---------------------------|----------------------------|--------------------------|-----------------|----------------------|--------|---------------|-----------------------|
| HA-MKDL-60-CC  |                           |                            |                          |                 | CR                   | D      |               |                       |
| HA-MKDL-60-CC  | 3/4"<br>15 GPM            | 3/4"                       | 1/2"<br>15 GPM           | 1/2"<br>15 GPM  | 1/2"                 | 3/4"   | 1/2"<br>1 CFM | 3/4"<br>320 lbs/hr    |
| HA-MKDL-100-CC | 1"<br>20 GPM              | 1"                         | 3/4"<br>20 GPM           | 3/4"<br>20 GPM  | 3/4"                 | 1"     | 1/2"<br>1 CFM | 1"<br>525 lbs/hr      |
| HA-MKDL-150-CC | 1 1/4"<br>20 GPM          | 1 1/4"                     | 3/4"<br>20 GPM           | 3/4"<br>20 GPM  | 1"                   | 1 1/4" | 1/2"<br>1 CFM | 1 1/4"<br>780 lbs/hr  |
| HA-MKDL-200-CC | 1 1/4"<br>25 GPM          | 1 1/4"                     | 3/4"<br>20 GPM           | 3/4"<br>20 GPM  | 1"                   | 1 1/4" | 1/2"<br>1 CFM | 1 1/4"<br>1050 lbs/hr |
| HA-MKDL-300-CC | 1 1/2"<br>30 GPM          | 1 1/2"                     | 3/4"<br>20 GPM           | 3/4"<br>20 GPM  | 1"                   | 1 1/2" | 1/2"<br>1 CFM | 1 1/2"<br>1575 lbs/hr |

\*\* HOT FILL WATER IS OPTIONAL

65 PSI STEAM OPERATING PRESSURE IS RECOMMENDED

(NOT TO SCALE)  
SECT. XIV PAGE 8  
1201

# J. C. PARDO & SONS, Inc.

*Stainless Steel and Nickel Fabricators*

*Manufacturers of Steam Jacketed Kettles and Tanks*



1250 REAMES ROAD, OFF PULASKI HWY.

TELEPHONE: 391-3600 - 391-3603  
(AREA CODE 410)

BALTIMORE, MARYLAND 21220

## INSTALLATION INSTRUCTIONS

1. WHEN REMOVING THE KETTLE FROM THE PLATFORM, HANDLE WITH CARE TO PREVENT SCRATCHING OR ANY OTHER DAMAGE. IT IS IMPERATIVE THAT THE KETTLE BE LEVEL BEFORE BOLTING TO THE FLOOR. THIS WILL PREVENT ANY TWIST OR OUT OF ROUNDNESS TO THE KETTLE AND WILL STOP DEFLECTION OF THE AGITATOR. MAKE SURE THE KETTLE IS SECURELY BOLTED TO THE FLOOR AND FOLLOW THE PROCEDURE LISTED BELOW:

- A. RAISE THE FLANGE ON THE LEG OR LEGS UNDER THE MOTOR SO THAT IT SETS FREELY.
- B. BECAUSE MOST FLOORS HAVE A PITCH TO ALLOW FOR DRAINING THE FLANGES CAN ONLY BE LOWERED APPROXIMATELY 1" DOWNWARD. IF THERE IS ANY VOD BETWEEN THE FLANGE AND THE FLOOR YOU MUST USE SHIMS TO FILL UP THE SPACE.
- C. LOWER THE FLANGE OR FLANGES UNDER THE MOTOR CHANNEL. OVER ADJUSTMENT, WHETHER UP OR DOWN, COULD CAUSE MISALIGNMENT AND CAUSE DAMAGE TO THE AGITATOR DRIVE SHAFT AND HUB. WHEN THIS IS COMPLETED YOU ARE THEN READY TO BOLT THE FLANGE OR FLANGES TO THE FLOOR.

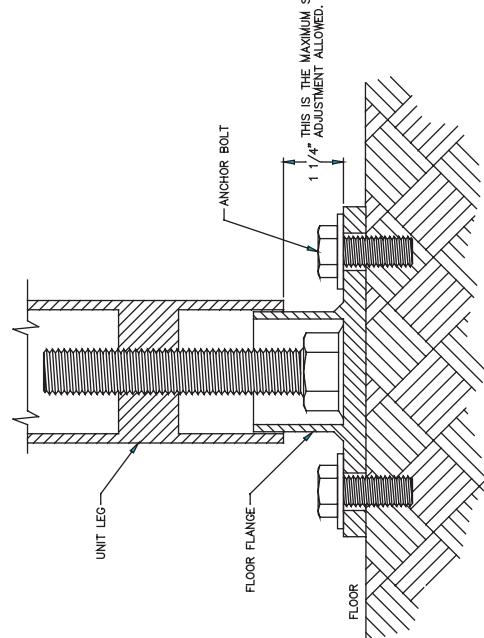
2. NEXT YOU MUST CHECK THE ALIGNMENT OF THE DRIVE SHAFT FOR A UNIFORM CLEARANCE BETWEEN THE HUB AND THE SHAFT. IN ORDER

TO CHECK FOR CLEARANCE YOU MUST REMOVE THE SEAL COVER PLATE AND PULL THE SEAL BACK. YOU CAN CHECK THE DISTANCE FOR CLEARANCE BY USING A WIRE FEELER GUAGE.

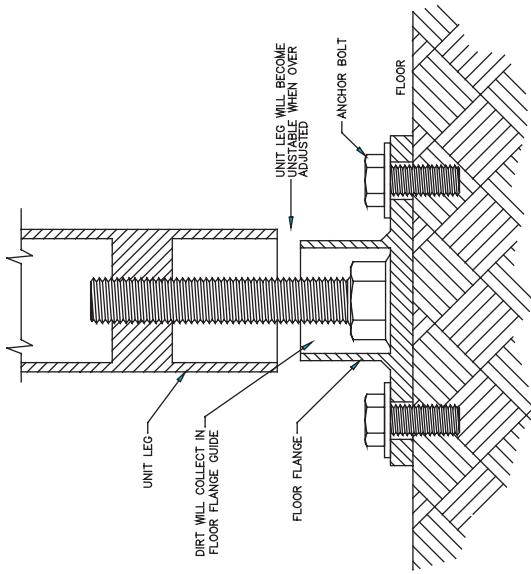
3. IF ADJUSTMENT IS REQUIRED FOR SIDE DIRECTION, LOOSEN THE MOTOR BOLTS, CENTER THE SHAFT AND RETIGHTEN.

IF VERTICAL ALIGNMENT IS NEEDED, LOOSEN THE MOTOR BOLTS AND ADD A SHIM TO RAISE OR REMOVE A SHIM TO LOWER. RETIGHTEN BOLTS. WHEN THIS IS COMPLETE, CHECK TO SEE IF THE AGITATOR SHAFT COUPLING SLIDES FREELY FOR EASY REMOVAL OF THE AGITATOR.

NOTES:  
AFTER UNIT IS LEVEL, ANCHOR ALL FLOOR FLANGES  
TO THE FLOOR BY USING AN ANCHOR BOLT IN EACH  
HOLE OF THE FLANGES.



CORRECT ADJUSTMENT  
OF FLOOR FLANGE



INCORRECT ADJUSTMENT  
OF FLOOR FLANGE

**J. C. PARDO & SONS INC.**  
1250 REAMES RD.   
BALTO MD. 21220  
PHONE (410) 391-3600 FAX (410) 391-9042

CHECKED BY:  
DRAWN BY: JAY S.

2" TO 2 1/2" FLOOR FLANGE  
ADJUSTMENT INSTRUCTIONS

SIZE: B

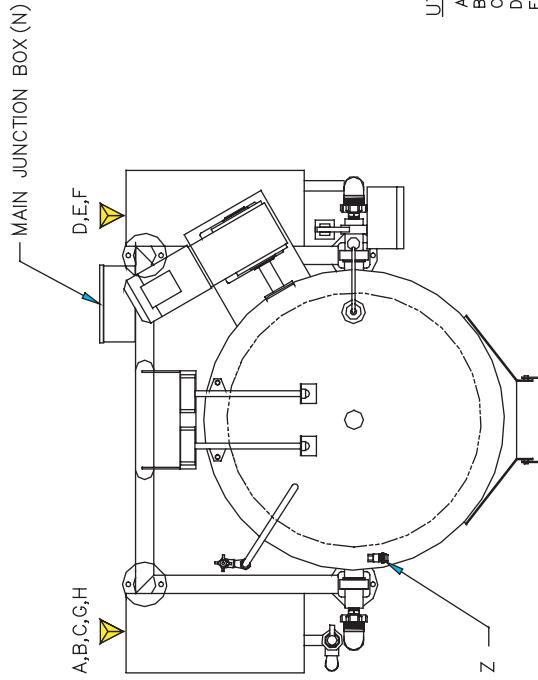
DRAWING NUMBER:  
8576

SHEET

1 OF 1

APPROVED BY:  
DATE: 4-27-96  
SCALE: NONE

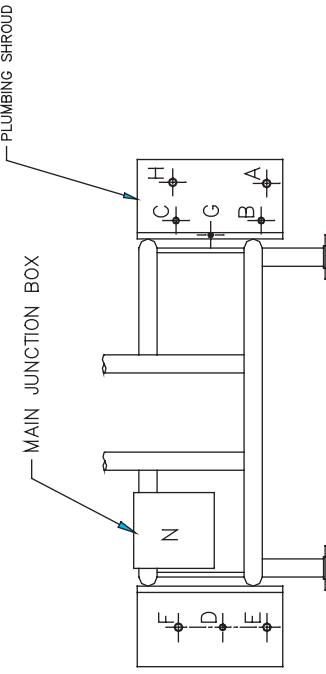
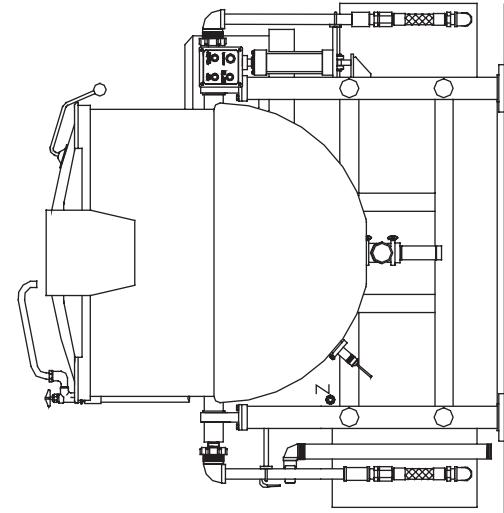
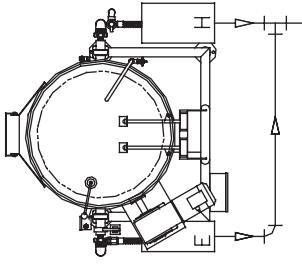
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#### UTILITY CONNECTIONS

- A) 1 1/4" NPT STEAM IN
- B) 3/4" NPT COLD POTABLE WATER
- C) 3/4" NPT HOT POTABLE WATER (OPTIONAL)
- D) 1 1/4" NPT COOLING WATER IN
- E) 1 1/4" NPT JACKET DRAIN
- F) 1" NPT CONDENSATE RETURN
- G) 1/2" NPT AIR IN
- H) 1 1/4" NPT COOLING WATER OUT
- I) MOTOR & CONTROL POWER IN FROM MAIN CONTROL PANEL.
- Z) AIR CONNECTION FOR FOOD PUMP

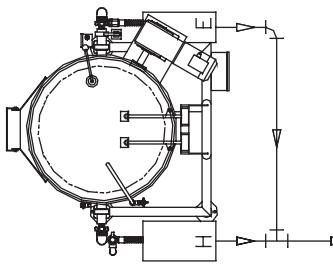
**WATER CONSERVATION OPTION:**  
THE JACKET DRAIN LINE CAN DUMP INTO  
THE COOLING WATER OUT LINE AS SHOWN  
ABOVE.



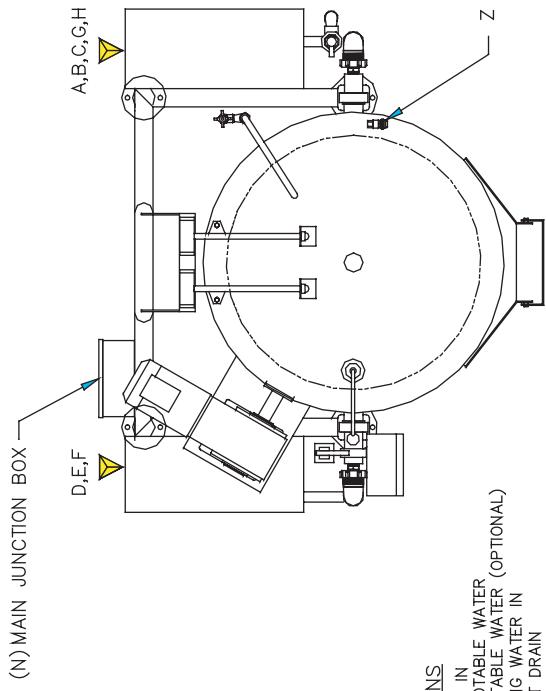
REAR DETAIL WITH UTILITY CONNECTIONS

| REV. | DESCRIPTION | BY | DATE | DRAWN BY: JAY S. | CHECKED BY: | APPROVED BY:    | REV. | DRAWING NUMBER: |
|------|-------------|----|------|------------------|-------------|-----------------|------|-----------------|
|      | REVISIONS   |    |      | DATE 2/27/03     |             | BALTO MD. 21220 |      | 9196-R          |

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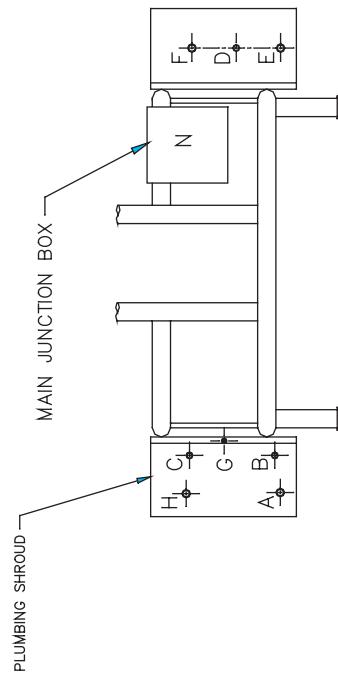
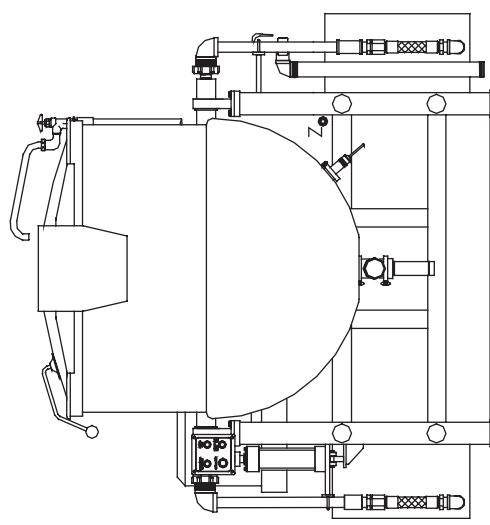


WATER CONSERVATION OPTION:  
THE JACKET DRAIN LINE CAN DUMP INTO  
THE COOLING WATER OUT LINE AS SHOWN  
ABOVE.



UTILITY CONNECTIONS

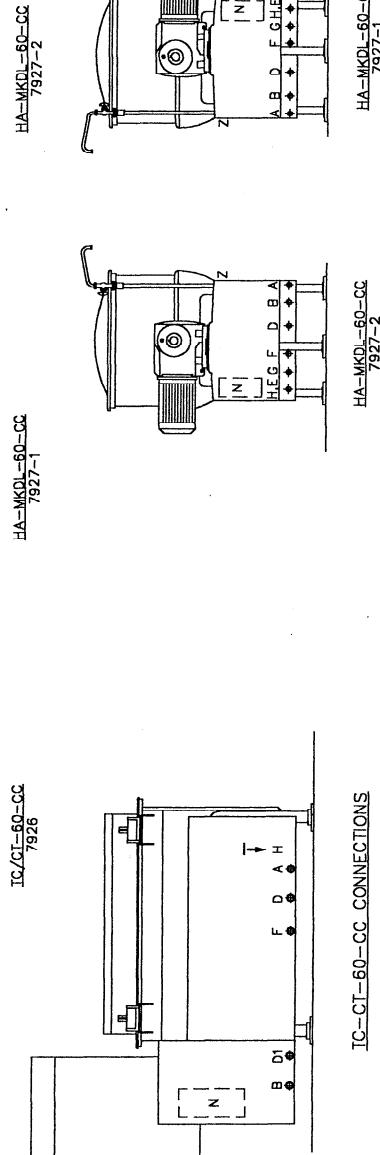
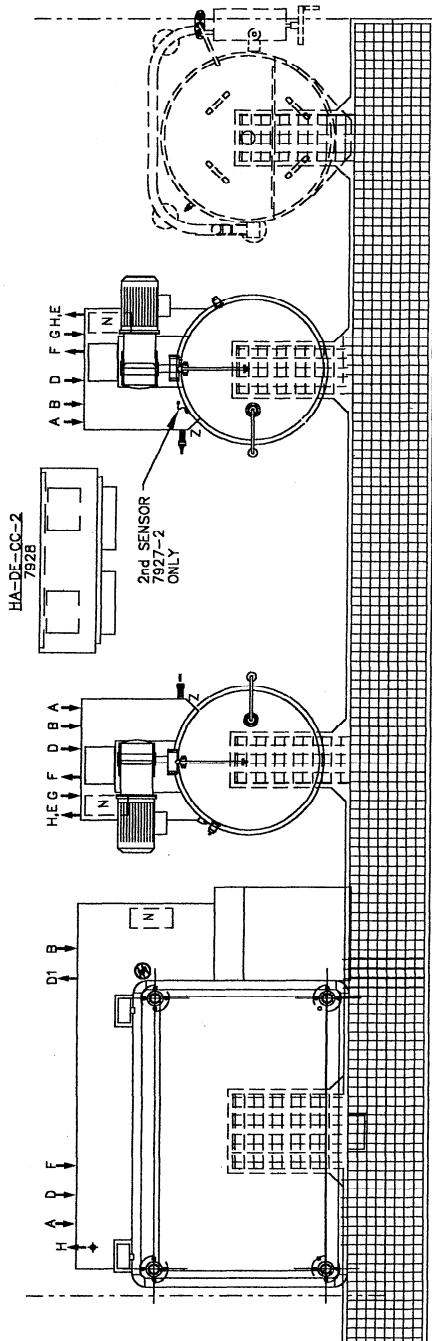
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- E) 1 1/4" NPT JACKET DRAIN
- F) 1" NPT CONDENSATE RETURN
- G) 1/2" NPT AIR IN
- H) 1 1/4" NPT COOLING WATER OUT
- I) MOTOR & CONTROL POWER IN FROM  
MAIN CONTROL PANEL.
- Z) AIR CONNECTION FOR FOOD PUMP



REAR DETAIL WITH UTILITY CONNECTIONS

| REV. | DESCRIPTION  | BY | DATE | DRAWN BY     | CHECKED BY | APPROVED BY | SCALE | REVISIONS | PRINTING NUMBER:        |
|------|--|----|------|--------------|------------|-------------|-------|-----------|-------------------------|
|      | J.C.PARDO & SONS INC.  |    |      | JAY S.       |            |             |       |           | HA-MKDL-150-CC-T (L.H.) |
|      | 1250 REAMES RD. <br>BALTO MD. 21220 |    |      | DATE 2/27/03 |            |             |       |           | C 9196-1                |
|      | PHONE (410) 391-3860   |    |      |              |            |             |       |           | REV. 1 of 1             |
|      | FAX (410) 391-9042   |    |      |              |            |             |       |           | Sheet                   |

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## EVENING INSTRUCTIONS

U A 3/4" NPT STEAM IN  
U B 1" NPT COLD POTABLE FILL WATER IN  
U C 1/4" NPT COOLING WATER IN  
U D 1" NPT COOLING WATER OUT  
U E 1/4" NPT DRAIN TO OPEN  
U F 3/4" NPT CONDENSATE RETURN  
U G 1/4" NPT COOLING WATER OUT  
U H 208V-3PH-120HZ MAIN POWER SUPPLY

UTILITY CONNECTIONS—TC/CT-60-CC

|   |        |                                    |
|---|--------|------------------------------------|
| A | 3/4"   | NPT STEAM IN                       |
| B | 1"     | NPT COLD POTABLE FILL WATER        |
| C | 1 1/4" | NPT COOLING WATER IN               |
| D | 1 1/2" | NPT TANK DRAIN TO OPEN FLOOR DRAIN |
| E | 1 1/2" | NPT CONDENSATE RETURN              |
| F | 3/4"   | NPT COOLING WATER OUT              |
| G | 1 1/4" | NPT COOLING WATER OUT              |
| H | 2 1/2" | 60HZ MAIN POWER SUPPLY             |
| I | 2 1/2" | 208V-3PH COOLING WATER IN          |

**CUSTOMER CONNECTIONS**

A) 3/4" NPT STEAM IN  
B) 1/2" NPT COLD POTABLE FIL. WATER  
C) 3/4" NPT COOLING WATER IN  
D) 1/2" NPT CONDENSATE RETURN  
E) 1/2" NPT AIR IN  
F) 3/4" NPT AIR OUT  
G) 1/2" NPT JACKET DRAIN  
H) 3/4" NPT JACKET DRAIN  
I) CONTROL & POWER WIRES FROM MAIN  
J) CONTROL PANEL TO KETTLE  
K) AIR QUICK DISCONNECT FOR FOOD PUMP

JOB #: \_\_\_\_\_ QTY:

|   |         |                |   |   |
|---|---------|----------------|---|---|
| <b>J. C. PARDO &amp; SONS INC.</b>  |         | APPROVED BY:   | <b>ISR-KENT<br/>UTILITY CONNECTIONS</b> |   |
| CHECKED BY:   |         |                | DRAWN BY: SME                           | UNLESS NOTED OTHERWISE<br>TOLERANCES ARE: |
| DATE:   | 7/25/00 | .XX = $\pm$    | .XX = $\pm$                             |   |
| SCALE:  | NONE    | FRACT. = $\pm$ | ANGLE = $\pm$                           |   |
|   |         | FINISH =       | RMS                                     |   |
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|   |         | REV.           | 1                                       | of 1                                      |
|   |         | SIZE:          | B                                       | DRAWING NUMBER:<br>8983                   |
|   |         | SHEET:         |   |   |



**Cleveland Range, LLC.**

1333 East 179<sup>th</sup> Street

Cleveland, OH 44110

Phone: (216) 481-4900

Fax: (216) 481-3782

<http://www.clevelandrange.com>

## MIXER KETTLES

### Kettle Placement

- Level
- Centered on hoist rail
- All legs bolted to floor
- Gear box properly supported
- Proper clearance
- Pasta basket and batch bucket clearances
- Floor drains and poor paths

Model no.\_\_\_\_\_

Serial no.\_\_\_\_\_

Comments:

### Electrical Requirements

- Voltage
- Phase
- Amp draw
- Wire Size
- Check motor rotation

### Water requirements

#### 1. **Hot and cold water supply (Potable)**

- Line size
- Maximum water pressure
- Line strainers
- Pressure regulator
- Water quality

#### 2. **Chilled Water**

- Line sizes (in and out)
- Locate and inspect line strainer
- Check for leaks

### Steam Requirements

- Locate steam source
- Line sizes (in and out)
- Steam pressure
- Steam gauge
- Check safety valve operation
- Check for leaks

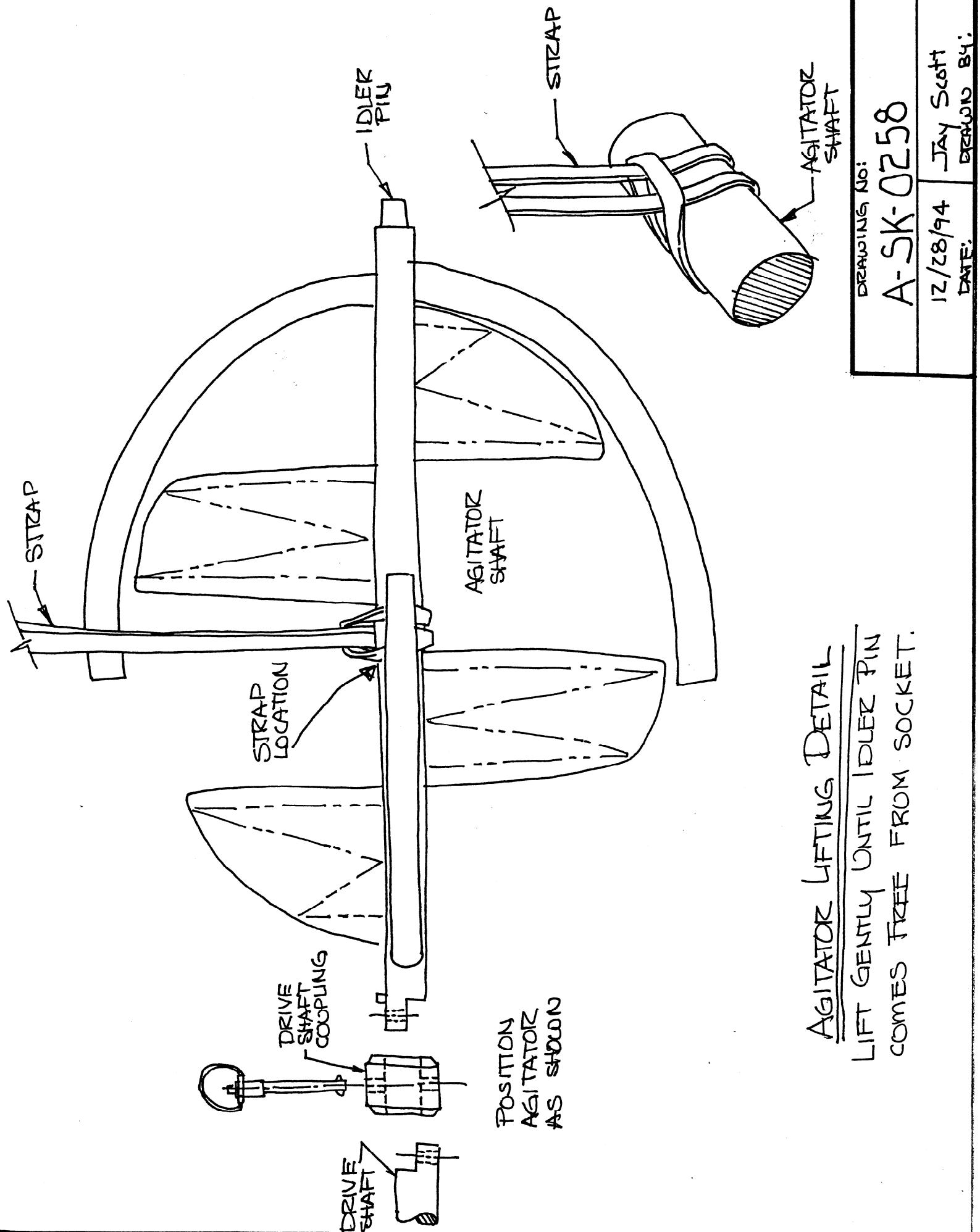
### Air Requirements

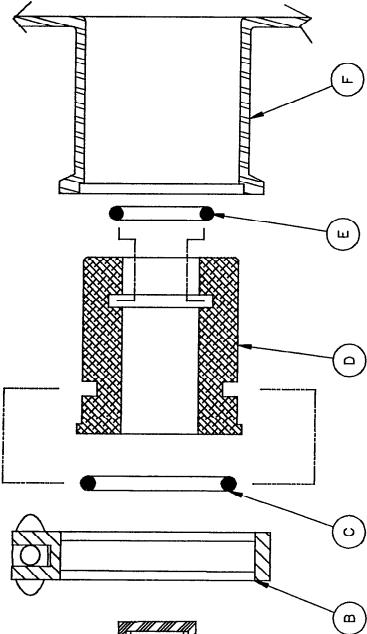
- Line size
- Pressures
- Check lubricator
- Check for leaks

DAILY CLEANING INSTRUCTIONS OF AGITATOR ASSEMBLY

FOLLOW THE INSTRUCTIONS LISTED BELOW TO REMOVE THE AGITATOR:

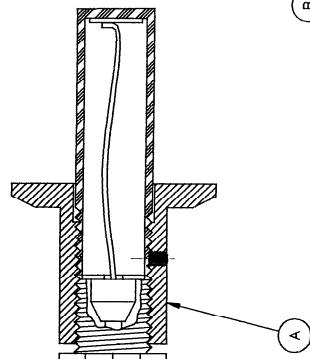
- A. ROTATE THE AGITATOR UNTIL THE PULL PIN IS ON THE TOP SIDE.
- B. TURN POWER OFF TO AVOID ACCIDENTS.
- C. PULL PIN OUT. SLIDE COUPLING TOWARD SEAL AND CAREFULLY LIFT AGITATOR AND PULL BACK TO LIFT OUT. BY EXCEEDING TOO MUCH FORCE WHEN LIFTING THE AGITATOR UP, AND WITHOUT PULLING BACK, YOU WILL BEND THE IDLER BEARING SLEEVE WELDED IN THE INTERIOR OF THE KETTLE.





#### CLEANING INSTRUCTIONS

1. BE SURE KETTLE IS EMPTY AND MAIN POWER IS DISCONNECTED.
2. REMOVE CLAMP "B" AND SLIDE TEMP. PROBE ASSEMBLY "A" OUT OF THE SEAL HOLDER "D". PLACE PROBE ASSEMBLY IN HOLDER ON KETTLE LEG.
3. SLIDE SEAL HOLDER "D" OUT OF THE FERRULE "F" AND REMOVE INNER AND OUTER O-RINGS "C" AND "E".
4. CLEAN ALL PARTS THROUGHLY.



#### REASSEMBLY INSTRUCTIONS

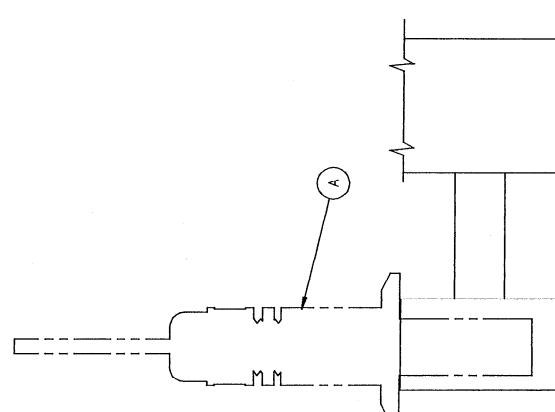
1. LUBRICATE O-RINGS WITH CHESTERTON 622, USDA APPROVED OR EQUIVALENT BEFORE REASSEMBLY.
2. INSTALL LUBRICATED O-RINGS "C" & "E" INTO SEAL HOLDER "D".
3. INSTALL SEAL HOLDER "D" WITH O-RINGS "C" & "E" INTO FERRULE "F".
4. SLIDE TEMP. PROBE ASSEMBLY "A" INTO SEAL HOLDER "D".
5. REPLACE CLAMP "B".

## WARNINGS

1. FAILURE TO PLACE PROBE ASSEMBLY IN HOLDER COULD RESULT IN DAMAGE.
2. DO NOT USE CAUSTIC SODA ON PARTS "C", "D", OR "E" AS THIS WILL RESULT IN DAMAGE.

KETTLE LEG

TEMP SENSOR HOLDER



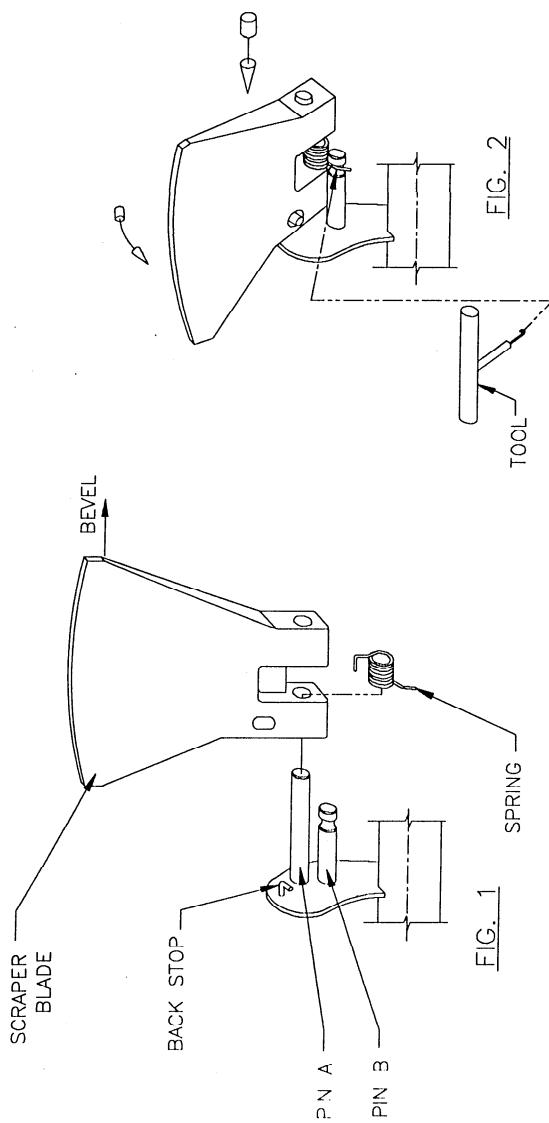
| B    | ADDED LINE NOTE 2                  | JK 6/10/96 | LY 4/27/95 | J.C.PARDO & SONS INC.   | CREATED BY:        | DOWN LN.LY.  | TEMPERATURE SENSORS | CLEANING INSTRUCTIONS | DRIVING NARROW: |
|------|------------------------------------|------------|------------|---|--------------------|--------------|---------------------|-----------------------|-----------------|
| A    | REDRAWN FROM HAND AND ADDED NOTES. |            |            | 1250 REAMES RD.  | BAUTO MD. 21220    | DATE 4/27/95 |                     |                       | C 8322          |
| REV. | DESCRIPTION                        | BY         | DATE       | PHONE (410) 391-3660  | FAX (410) 391-9042 | APPROVED BY  | SCALE NONE          | SCALE NONE            | REV. SHEET      |
|      | REVISIONS                          |            |            |   |                    | 16/2/97      |                     |                       | B 1 of 1        |

TO REMOVE TEFLON SCRAPER BLADE

INSERT TOOL THAT IS PROVIDED IN AREA INDICATED IN FIG. # 2. FULL UP ON SPRING ARM UNTIL SPRING ARM CLEARS GROOVE IN "PIN B." GENTLY RELEASE SPRING. SPRING IS NOW DISENGAGED. REMOVE SCRAPER.

TO INSTALL TEFLON SCRAPER BLADE

SLIDE SCRAPER BLADE AND SPRING ONTO "PIN A" AS SHOWN IN FIG. # 1 & FIG. # 2 USING TOOL THAT IS PROVIDED. SPRING ARM & PULL UP, SLIDE ASSEMBLY ON AND HOOK SPRING ARM IN GROOVE ON "PIN B" AND RELEASE.



JOB #

|                           |                  |
|---------------------------|------------------|
| J.C. PARDO & SONS INC.    |                  |
| 1250 REAMES RD.           | BALTO. MD. 21220 |
| SCALE NONE                | APPROVED BY      |
| DATE 4/25/95              | Laurie Yori      |
| INSTALLATION & REMOVAL OF |                  |
| SCRAPER BLADE & SPRING    |                  |
| SHEET 1 of 1              | SIZE B           |
| DRAWING NUMBER 8059       |                  |
| REV. A                    |                  |

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INSTALLATION OF NEW SCRAPER BLADE

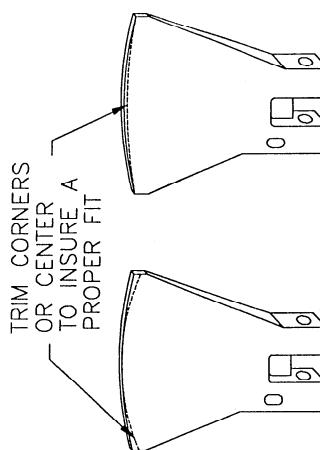
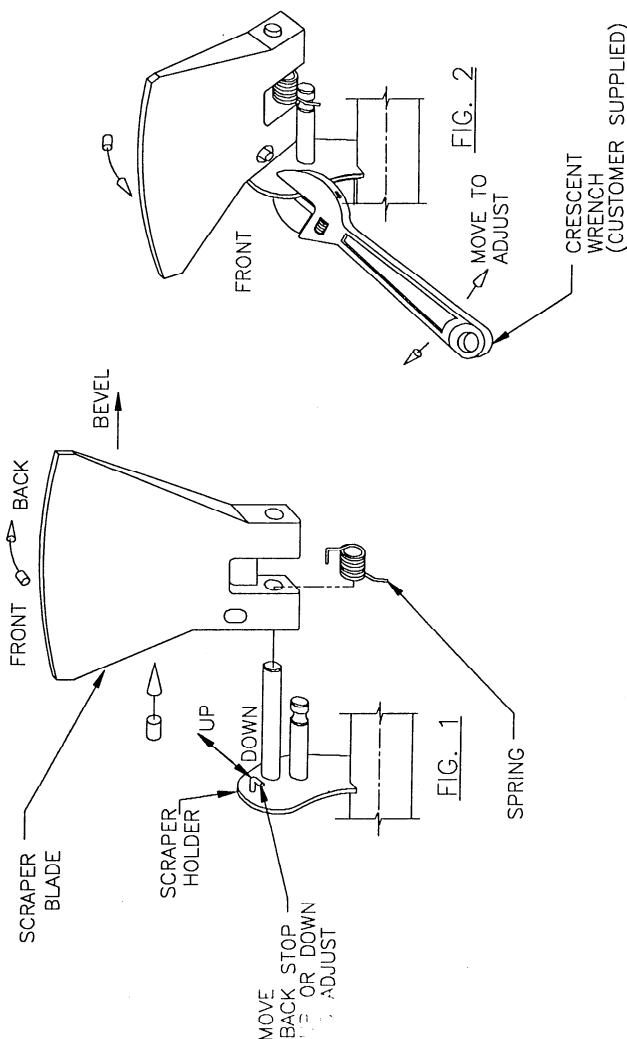
WHEN INSTALLING A NEW SCRAPER BLADE THERE MAY BE SOME ADJUSTMENTS REQUIRED TO MAKE IT LAY FLAT TO FOLLOW THE CONTOUR OF THE KETTLE. IF THE BLADE DOES NOT FIT, YOU MAY HAVE TO GRIND EITHER THE TWO EDGES OF THE BLADE, OR THE CENTER OF THE BLADE (PER. DETAIL A).

NOTE # 1

WHEN THERE IS TOO MUCH OR TOO LITTLE PRESSURE ON THE SCRAPER BLADE, BEND THE BACK STOP DOWN TO DECREASE THE PRESSURE OR BEND IT UP TO INCREASE THE PRESSURE ON THE BLADE WHEN SCRAPING THE KETTLE SURFACE (PER. FIG. 1).

NOTE # 2

IF ONLY ONE CORNER OF THE SCRAPER BLADE IS TOUCHING THE KETTLE SURFACE, USE A CRESCENT WRENCH AND SLIGHTLY TWIST THE SCRAPER HOLDER SO THE ENTIRE BLADE SCRAPES THE KETTLE WALL WITH EVEN PRESSURE.



JOB #

|   |                              |
|---|------------------------------|
| <b>J. C. PARDO &amp; SONS INC.</b>                |                              |
| 1250 REAMES RD.                                   | BALTO. MD. 21220             |
| SCALE: 1/4"                                       | APPROVED BY                  |
| DATE: 4/25/95                                     | Detail 6 4/25/95 LAURIE YORI |
| REPLACEMENT AND FITTING<br>SCRAPER BLADE & SPRING |                              |
| SHEET 1 of 1                                      | SIZE: B 8230 C               |

REV. 10/10/95

PRINTING NUMBER: 8230

DRAWN BY: LAURIE YORI

DESIGNED BY: LAURIE YORI

APPROVED BY: LAURIE YORI

REPLACEMENT AND FITTING

SCRAPER BLADE & SPRING

DATE: 4/25/95

SCALE: 1/4"

APPROVED BY: LAURIE YORI

DESIGNED BY: LAURIE YORI

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REPLACEMENT AND FITTING

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DESIGNED BY: LAURIE YORI

APPROVED BY: LAURIE YORI

INSTRUCTIONS:

1. DISCONNECT THE AIR LINE FROM THE VALVE ACTUATOR AS SHOWN IN FIGURE 1.
2. WHILE SUPPORTING THE VALVE ACTUATOR TO THE SIDE UNTIL THE STEM IS CLEAR OF THE TEE, THEN LOWER THE VALVE ACTUATOR AND SWING IT TO THE SIDE AS SHOWN IN FIGURE 2.
3. REMOVE THE STEM FROM THE VALVE ACTUATOR BY PULLING UP WHILE HOLDING THE VALVE ACTUATOR IN PLACE AS SHOWN IN FIGURE 2. NEXT REMOVE THE O-RING FROM THE ACTUATOR & STEM AS SHOWN IN FIGURE 2.
4. REMOVE THE TOP CLAMP FROM THE TEE AND THEN REMOVE THE TEE AS SHOWN IN FIGURE 3.
5. REMOVE THE O-RINGS FROM THE TEE AS SHOWN IN FIGURE 4.

SEE DRAWING C-8630 FOR ASSEMBLY INSTRUCTIONS.

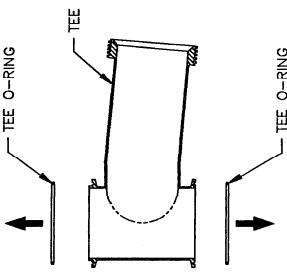


FIGURE 4

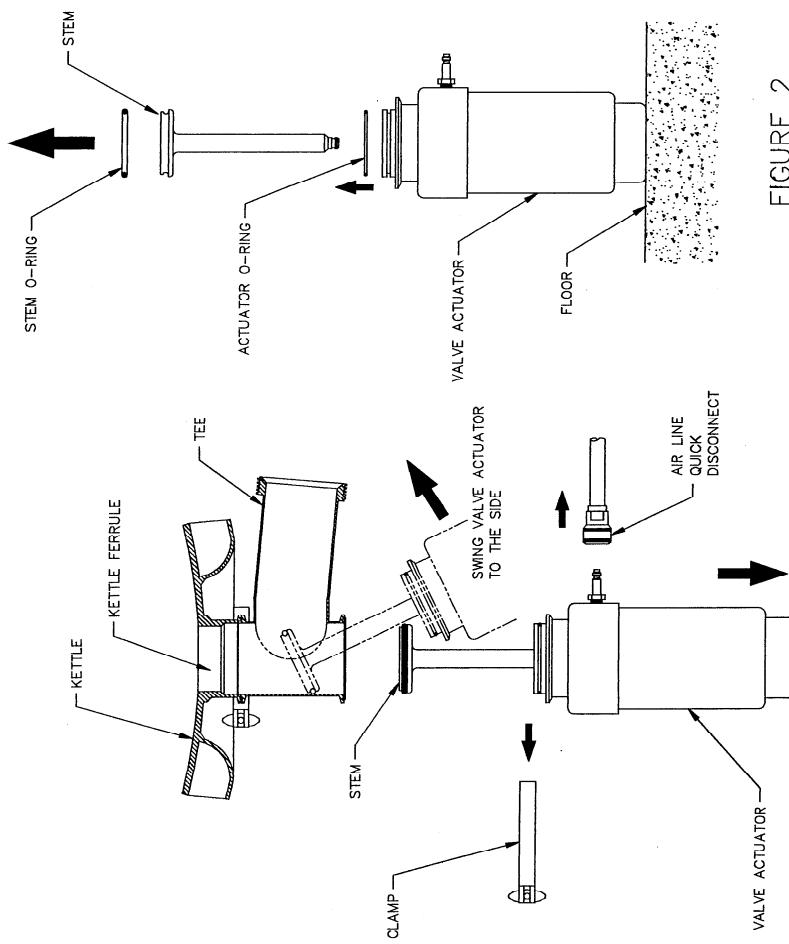


FIGURE 1

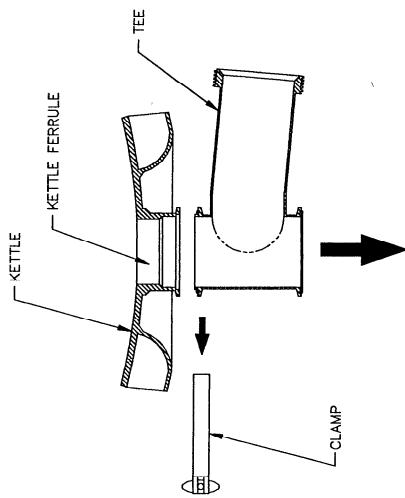


FIGURE 3

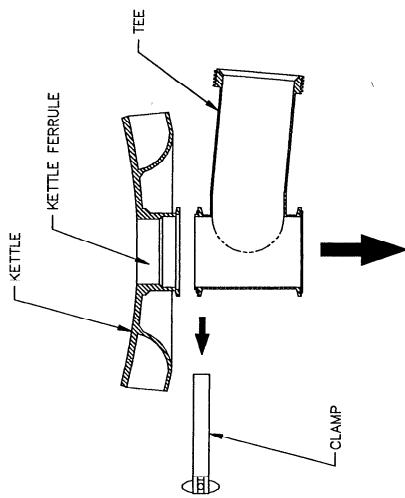


FIGURE 3

| INSTRUCTIONS TO DISASSEMBLE 3" PRODUCT VALVE W/ NEW STEM |   | DRAWN BY JAY S.      | REV. C | DRAWING NUMBER 8629 |
|--|---|----------------------|--------|---------------------|
| REV. A   | 7" CONN WAS 45° JES 4-27-96   | DATE 4-19-96         |        |                     |
| REVISIONS  | DESCRIPTION BY  | PREPARED BY          |        |                     |
|  | 1250 REAMES RD.  | PHONE (410) 391-9800 | 4/2/96 | REV. A 1 of 1       |

## INSTRUCTIONS:

**DISASSEMBLY**

1. MAKE SURE CONTROL POWER IS ON.
2. CLEAN AND GREASE STEM AND O-RINGS. USE CHESTERTON 622 OR EQUAL FOOD GRADE GREASE.
3. TO ASSEMBLE VALVE ACTUATOR AND STEM:
  - a) PLACE VALVE ACTUATOR ON THE FLOOR AND RECONNECT THE AIR LINE.
  - b) PLACE STEM IN THE VALVE ACTUATOR AS SHOWN IN FIGURE 1.
  - c) APPLY PRESSURE TO THE TOP OF THE STEM AS SHOWN IN FIGURE 1.

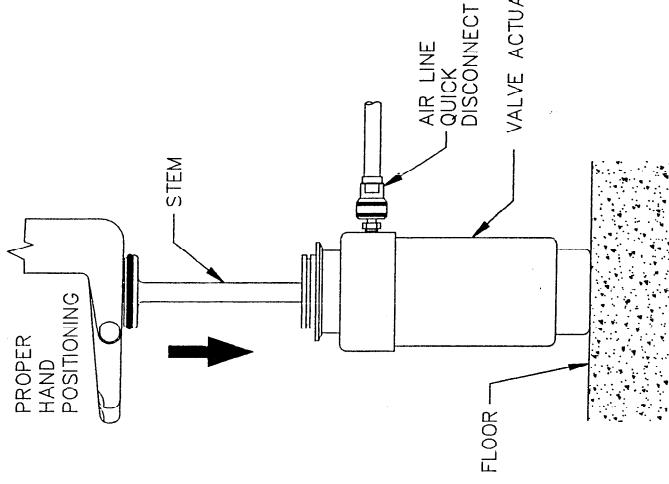
**CAUTION: USE THE FLAT OF THE HAND AS SHOWN IN FIGURE 1. FAILURE TO FOLLOW THIS MAY RESULT IN PERSONAL INJURY.**

## INSTRUCTIONS (CONT'D):

MAINTENANCE CONT.

- D) WHILE APPLYING PRESSURE TO THE STEM TURN THE PRODUCT VALVE SWITCH TO THE OPEN POSITION. THE STEM SHOULD LOWER.
- NOTE: IF THE STEM FAILS TO LOWER MAKE SURE THE STEM IS INSERTED CORRECTLY INTO THE VALVE ACTUATOR THEN REPEAT STEPS 3B THRU 3D.
- 4. ATTACH THE TEE TO THE KETTLE FERRULE WITH CLAMP AS SHOWN IN FIGURE 2.
- 5. ATTACH THE VALVE ACTUATOR TO THE TEE WITH CLAMP AS SHOWN IN FIGURE 3.
- 6. TURN THE PRODUCT VALVE SWITCH TO THE CLOSED POSITION AND THE KETTLE VALVE WILL CLOSE.

## LOSS OF SECURITY RESULT IN PERSONAL INJURY.



## FIGURE 1

## INSTRUCTIONS (CONT'D):

MAINTENANCE CONT.

- D) WHILE APPLYING PRESSURE TO THE STEM TURN THE PRODUCT VALVE SWITCH TO THE OPEN POSITION. THE STEM SHOULD LOWER.
- NOTE: IF THE STEM FAILS TO LOWER MAKE SURE THE STEM IS INSERTED CORRECTLY INTO THE VALVE ACTUATOR THEN REPEAT STEPS 3B THRU 3D.
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- 6. TURN THE PRODUCT VALVE SWITCH TO THE CLOSED POSITION AND THE KETTLE VALVE WILL CLOSE.

## DISABILITY INSURANCE'S ROLE IN PERSONAL INJURY

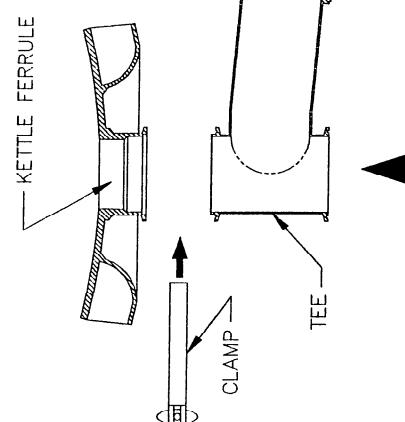


FIGURE 2

## INSTRUCTIONS (CONT'D):

MAINTENANCE CONT.

- D) WHILE APPLYING PRESSURE TO THE STEM TURN THE PRODUCT VALVE SWITCH TO THE OPEN POSITION. THE STEM SHOULD LOWER.
- NOTE: IF THE STEM FAILS TO LOWER MAKE SURE THE STEM IS INSERTED CORRECTLY INTO THE VALVE ACTUATOR THEN REPEAT STEPS 3B THRU 3D.
- 4. ATTACH THE TEE TO THE KETTLE FERRULE WITH CLAMP AS SHOWN IN FIGURE 2.
- 5. ATTACH THE VALVE ACTUATOR TO THE TEE WITH CLAMP AS SHOWN IN FIGURE 3.
- 6. TURN THE PRODUCT VALVE SWITCH TO THE CLOSED POSITION AND THE KETTLE VALVE WILL CLOSE.

## DISABILITY INSURANCE'S ROLE IN PERSONAL INJURY

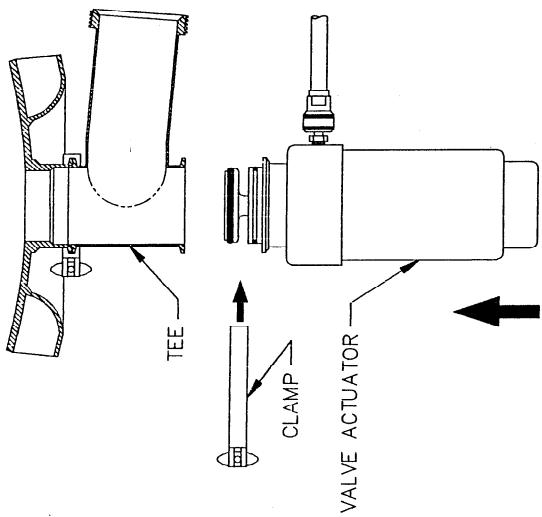
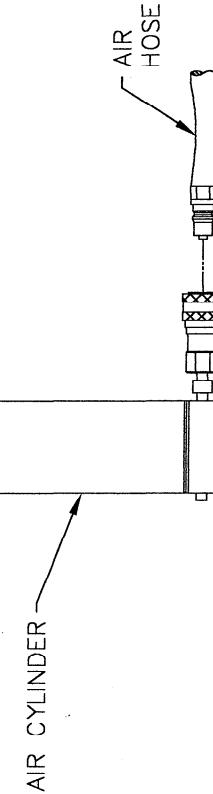
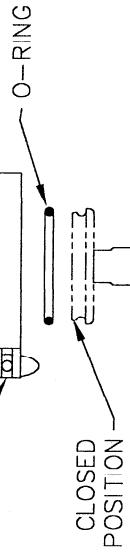
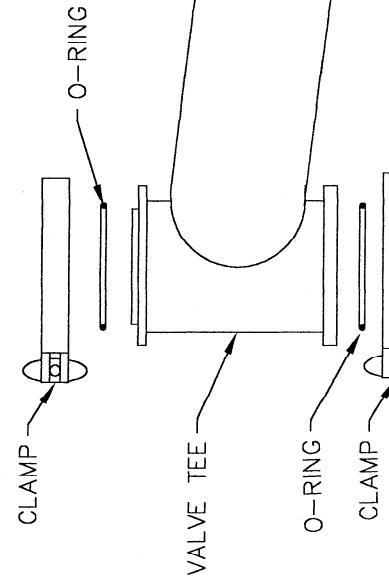
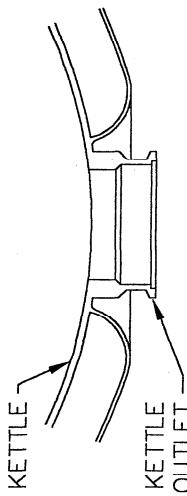


FIGURE 3

|  |             |                 |                       |                   |
|--|-------------|-----------------|-----------------------|-------------------|
| A 7' TEE CONN WAS 45°  |             | 1250 REAMES RD. | J.C. PARD & SONS INC. | DRAWN BY: T.M. K. |
| REV.   | DESCRIPTION | BY DATE         | BALTO MD. 21220       | APPROVED BY       |
|  | REVISIONS   |                 | PHONE (410) 381-3800  | SCALE: NONE       |
|  |             |                 | TELE: (410) 381-9402  | DATE: 4/19/96     |
|  |             |                 |                       | REV. C 2/21/97    |
| INSTRUCTIONS TO REASSEMBLE<br>3" PRODUCT VALVE WITH NEW STEM |             |                 |                       |                   |



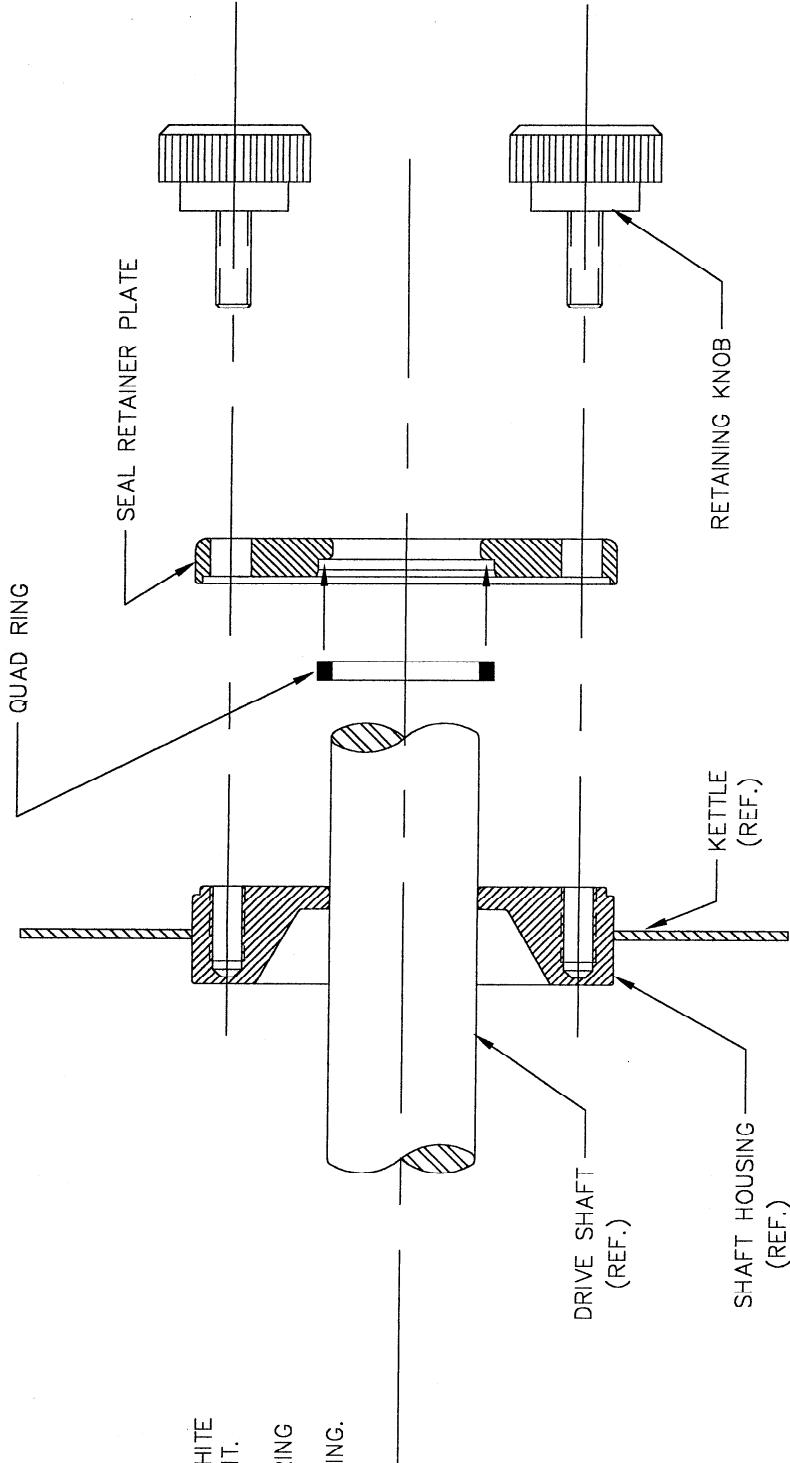
J.C.PARDO INSTALLATION & CLEANING  
INSTRUCTION FOR PRODUCT VALVE

- 1.) OPEN PRODUCT VALVE.
- 2.) DISCONNECT AIR HOSES.
- 3.) REMOVE AIR CYLINDER.
- 4.) REMOVE VALVE TEE.
- 5.) REMOVE ALL O-RINGS.
- 6.) CLEAN AIR CYLINDER. DO NOT SUBMERGE IN WATER. WIPE CLEAN AND SANITIZE.
- 7.) CLEAN AND SANITIZE TEE AND O-RINGS.
- 8.) GREASE AND REINSTALL O-RINGS.
- 9.) REINSTALL TEE TO KETTLE OUTLET.
- 10.) REINSTALL AIR CYLINDER TO BOTTOM OF TEE.
- 11.) RECONNECT AIR HOSES.
- 12.) O.K. TO CLOSE VALVE AND CHECK FOR ALIGNMENT.

|  |                     |                            |        |
|--|---------------------|----------------------------|--------|
| J.C.PARDO & SONS INC.  | REVISION: 00        | 3" J.C.PARDO PRODUCT VALVE | 00     |
| 1250 REEDERS RD.  | EDISON, NJ 08817    | 01/08/01                   | 9027   |
| PHONE: (908) 865-3600  | FAX: (908) 865-3600 | TELETYPE: (908) 865-3600   | 1 of 1 |

### DAILY CLEANING :

1. REMOVE RETAINING KNOBS.
2. SLIDE SHAFT SEAL RETAINER PLATE AWAY FROM SHAFT HOUSING.
3. SLIDE QUAD RING AWAY FROM SHAFT HOUSING.
4. CLEAN QUAD RING AND APPLY A LIGHT COAT OF 622 CHESTERTON WHITE FOOD GRADE GREASE OR EQUIVALENT.
5. SLIDE QUAD RING TOWARDS SHAFT HOUSING MAKING SURE THE QUAD RING DOES NOT TWIST.
6. SLIDE PLATE TOWARDS SHAFT HOUSING.
7. REPLACE RETAINING KNOBS. HAND TIGHTEN ONLY.



**J.C.PARDO & SONS INC.**

1250 REAMES RD.  BALTO. MD. 21220

DRAWN BY:

TM KAHL

PLATE

SHAF T SEAL AND RETAINER  
DAILY CLEANING PROCEDURE

REV.

SCALE: NONE APPROVED BY:

DATE: 3-23-94

SHAF T SEAL AND RETAINER PLATE

DAILY CLEANING PROCEDURE

SIZE: B DRAWING NUMBER: 8516

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## ASSEMBLY AND REMOVAL OF 300 GALLON HORIZONTAL AGITATOR KETTLE

### CLEANING OR MAINTENANCE

1. ROTATE AGITATOR UNTIL PULL PIN IS ON THE TOP SIDE.
2. TURN POWER OFF TO AVOID ACCIDENTS.
3. REMOVE KETTLE COVER.
4. SECURE LIFTING STRAP TO THE CENTER OF AGITATOR SHAFT AS SHOWN ON DWG. #8680 HOLD SO IT DOES NOT DROP.
5. REMOVE PULL PIN #8, SLIDE COUPLING ALL THE WAY TOWARD SEAL TO CLEAR AGITATOR SHAFT.
6. REMOVE BOLTS #12. GENTLY PULL BACK ON BEARING BLOCK #3 BY HOLDING THE HANDLE ON TOP SIDE OF BEARING BLOCK. **DO NOT DROP**
7. WITH ONE HAND OPERATE HOIST SWITCH, USING OTHER HAND TO GUIDE AGITATOR OUT OF THE KETTLE AND SET IT ON THE AGITATOR DOLLY.

### REINSTALL THE AGITATOR

1. LOWER THE AGITATOR WITH A HOIST, GENTLY SET BUSHING SIDE ON THE AGITATOR REST AND THE OTHER END ON THE DRIVE SHAFT, SIDE WITH COUPLING.
2. SLIDE COUPLING IN PLACE THEN INSERT PULL PIN.
3. GENTLY SLIDE IDLER BEARING BLOCK INTO KETTLE HUB. SECURE WITH THE (4) BOLTS, GREASE BUSHING, REMOVE STRAP, AND REPLACE KETTLE COVER.  
**(ASSEMBLY IS COMPLETE)**

## CLEANING OF A 300 GALLON HORIZONTAL AGITATOR IDLER END BEARING

HERE ARE TWO WAYS OF CLEANING A 300 GAL. HORIZ. AGI. IDLER END BEARING:

1. THE FIRST WAY IS TO FLUSH IT OUT WITH HOT WATER OR STEAM.
2. THE SECOND WAY IS TO REMOVE THE IDLER BEARING SECTIONS COMPLETELY.

### TO CLEAN WITH HOT WATER OR STEAM

1. SET AGITATOR SPEED TO LOWEST SETTING THEN TURN ON AGITATOR.  
(MAKE SURE KETTLE COVER IS CLOSED)
2. TURN ON VALVE TO STEAM OR HOT WATER THAT GOES TO THE CONNECTION OF AGITATOR IDLER BEARING MARKED **FLUSH CONNECTION** ON DWG. #8680. LEAVE ON FOR 5 TO 10 MINUTES THEN TURN OFF HOT WATER OR STEAM VALVE.
3. STOP AGITATOR, OPEN KETTLE COVER, AND RINSE INSIDE OF KETTLE WITH HOT WATER HOSE.
4. USING A GREASE GUN, GREASE IDLER BEARING WITH A CHESTERTON FOOD GREASE 622 OR EQUAL.
5. CLEAN DRIVE SIDE SHAFT SEAL. FOLLOW INSTRUCTIONS ON DWG. #8516.

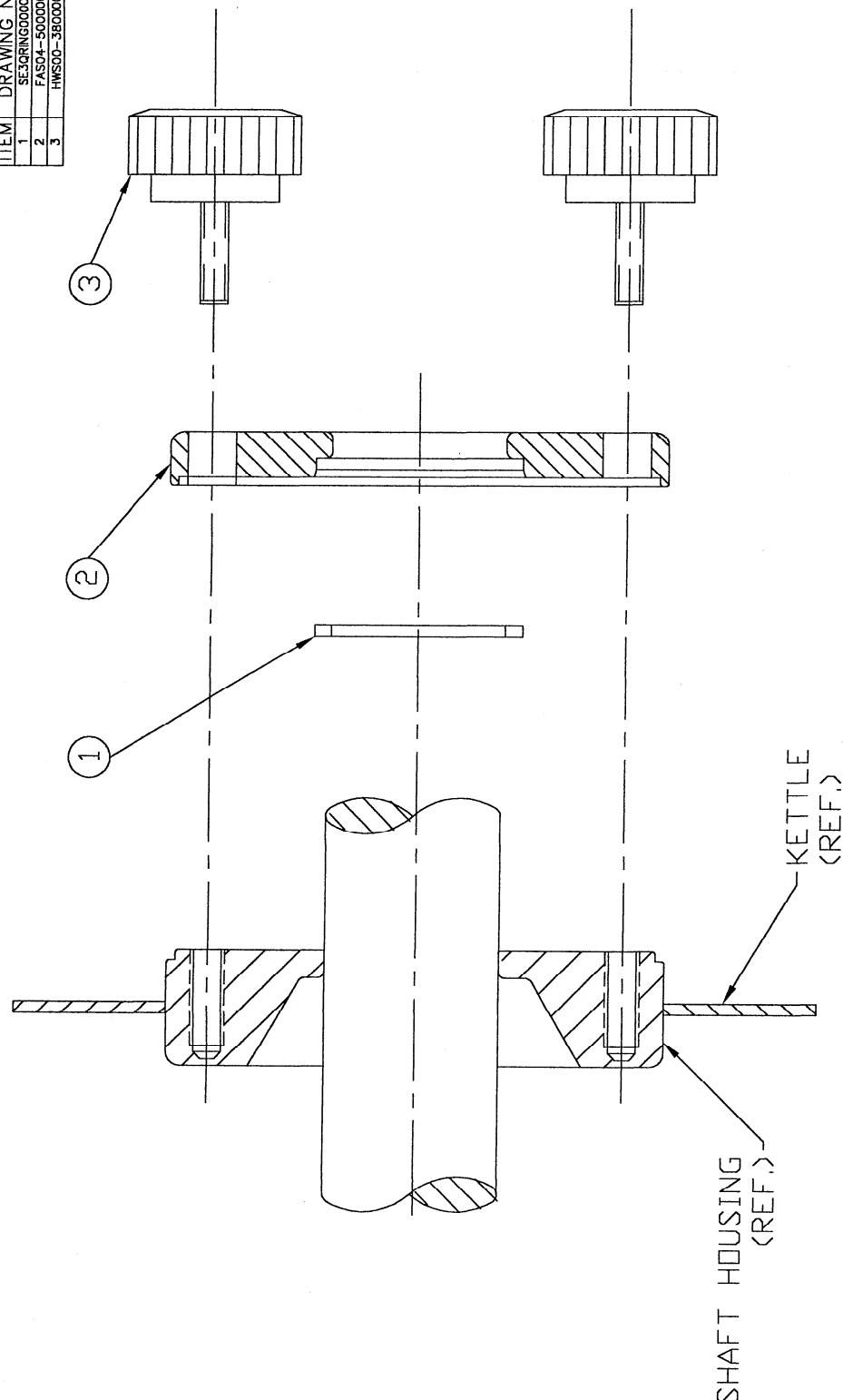
### TO CLEAN BY REMOVING THE BEARING SECTIONS

1. TURN POWER OFF TO THE KETTLE.
2. REMOVE BOLTS #13.
3. REMOVE BEARING END CAP, PART #1.
4. REMOVE BOLTS #12.
5. REMOVE BEARING BLOCK, PART #3 (DO NOT DROP). THE AGITATOR SHAFT WILL REST ON THE AGITATOR REST INSIDE THE KETTLE, AS ALL OF THIS IS SHOWN ON DWG. #8680.
6. REMOVE O-RING #2 AND #4 FROM PART #1 AND 3.
7. CLEAN THE END OF THE AGITATOR SHAFT AND ALL OTHER PARTS OF SEAL HOUSING WITH ANY ACCEPTABLE CLEANING SOLUTION, USING A CLOTH OR BRUSH.
8. APPLY A THIN COAT OF CHESTERTON 622 FOOD GREASE OR EQUAL TO THE OUTSIDE OF THE AGITATOR SLEEVE AND INSIDE THE BEARING HOUSING.
9. APPLY A THIN COAT OF GREASE ON O-RING #4 AND SLIDE BACK ONTO PART #3.

10. GENTLY SLIDE BEARING BLOCK BACK INTO KETTLE HUB TO START BOLTS. START BOLTS AND TIGHTEN SUFFICIENTLY TO HOLD THE AGITATOR BEARING BLOCK FROM MOVING AND LEAKING.
11. GREASE O-RING #1 THEN INSERT ONTO END CAP, PART #1.
12. INSERT CAP #1 INTO BEARING BLOCK AND BOLT IN PLACE SO IT DOESN'T LEAK.
13. FOLLOW DWG. #8516, AND CLEAN DRIVE SIDE SHAFT SEAL.

DRAWINGS FOR REPLACEMENT PARTS

| ITEM | DRAWING NO.   | DESCRIPTION         |
|------|---------------|---------------------|
| 1    | SE34R00005    | QUAD RING           |
| 2    | FAS04-500001  | SEAL RETAINER PLATE |
| 3    | HWS00-3800003 | RETAINING KNOBS     |



| REV | DESCRIPTION     | BY  | DATE    |
|-----|-----------------|-----|---------|
| A   | REDRAWN IN ACAD | SML | 8-2/-99 |

J.C.PARDO & SONS INC.

APPROVED BY \_\_\_\_\_

THE JOURNAL OF CLIMATE

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TOLERANCES ARE:  
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$$\text{XXX} = \pm \text{XXXX}$$

ANGLE =  $\pm$  XXXX  
FINISH = 64 RMS

JOB#:

RETAIN

60 C

Public and Private

QTY:

DRAWING NUMBER  
11037

SHEET 1020

1 of 1

JOB #: \_\_\_\_\_

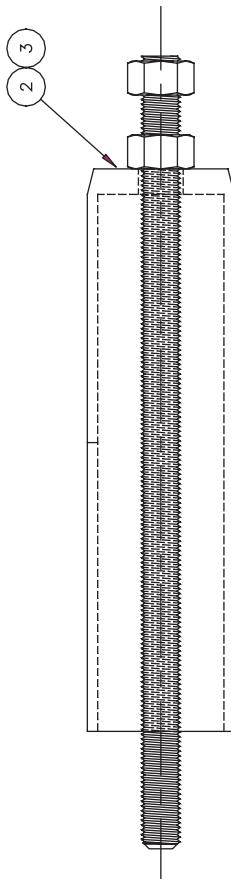
## RETAINER

60 GAL

Willing and able to be used  
for Public or Private  
and is not to be used  
to J. C. Pardo & Sons.

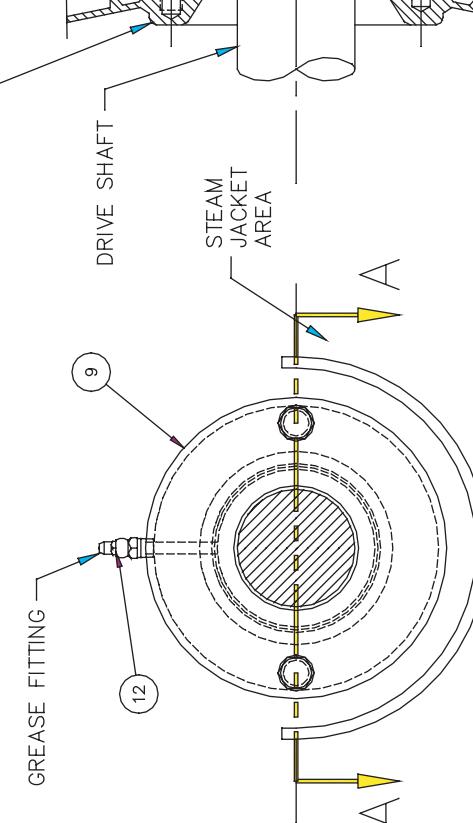
**REPLACEMENT PARTS LIST**

| ITEM | PART NO.         | DESCRIPTION                          |
|------|------------------|--------------------------------------|
| *    | 1 1H800-00000007 | HAK-100-200 SEALS & COVER PLATE ASSY |
| 2    | 1FS02-0000023    | HAK-100 DRIVE SHAFT PULLER           |
| 3    | 1FF02-38000010   | HAK-150-200 DRIVE SHAFT PULLER       |
| 4    | 1FF02-0000001    | SEALING RING                         |
| 5    | 1FD02-0000001    | SILICONE FILLED SEAL                 |
| 6    | 1FS02-0000022    | SST SPACING RING                     |
| 7    | SESEALSD0001     | SEAL                                 |
| 8    | SE3RINGD0007     | O-RING                               |
| 9    | 1FS05-0000005    | COVER PLATE                          |
| 10   | HWS00-3800011    | SST LOCK WASHER                      |
| 11   | HWS00-3800016    | SST BOLT                             |
| 12   | HWS00-1300001    | SST GREASE FITTING                   |
| 13   | MSFLUIDSD0001    | TUBE OF FOOD GRADE GREASE(NOT SHOWN) |
| 14   | 1H800-0000005    | GREASE GUN (NOT SHOWN)               |



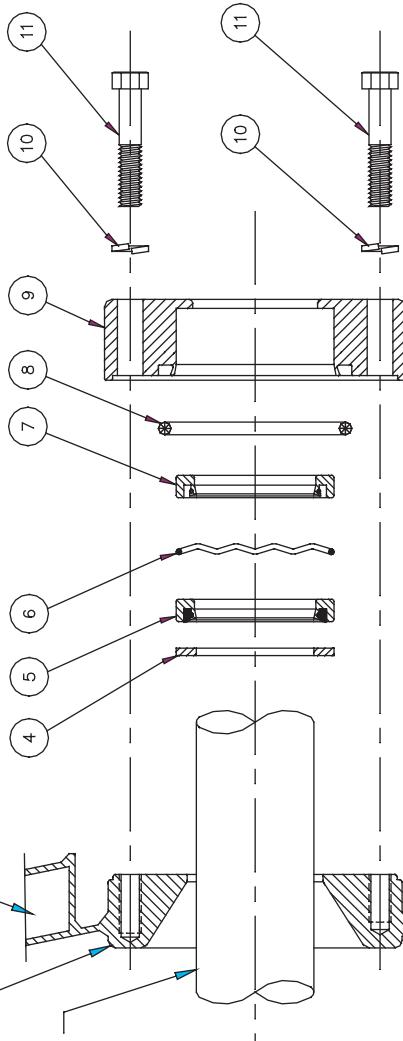
DRIVE SHAFT PULLER

STEAM  
JACKET  
AREA



END VIEW HUB

\* ITEM #1 CONSISTS OF ITEMS #4-13



EXPLoded SECTION A-A

| REV.      | DESCRIPTION | BY | DATE |
|-----------|-------------|----|------|
| REVISIONS |             |    |      |

**J.C.PARDO & SONS INC.**  
  
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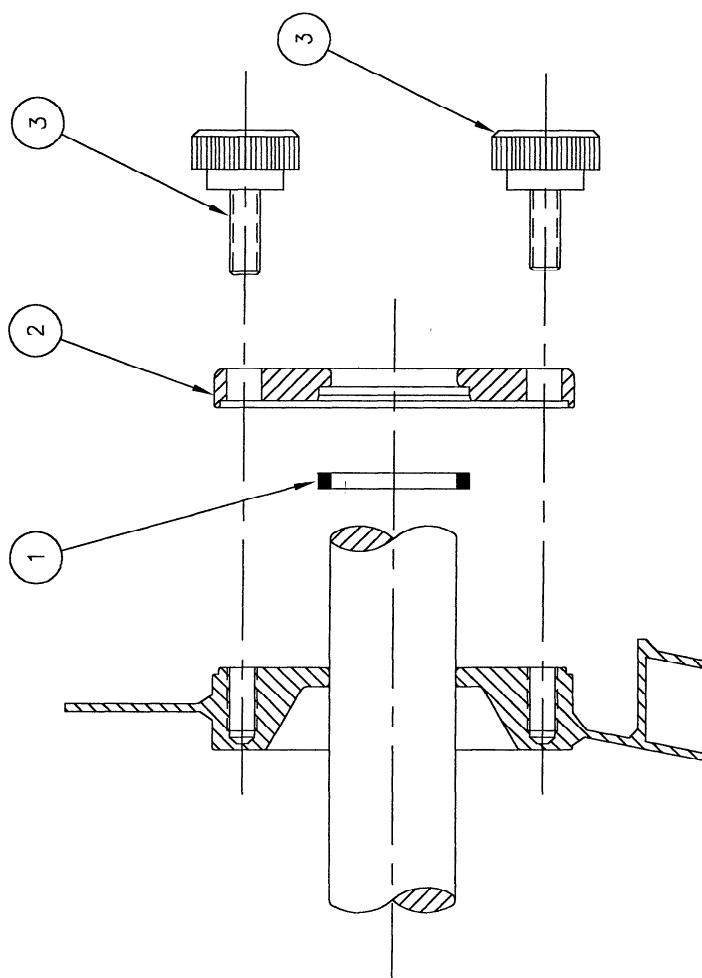
| ITEM | DESCRIPTION                                       | DRAWN BY: JES | APPROVED BY: | CHECKED BY: | REV. | SIZE: | DRAWING NUMBER: |
|------|---|---------------|--------------|-------------|------|-------|-----------------|
|      | SHAFT SEALS & COVER PLATE HAK-100-200 REPL. PARTS | DATE: 8/29/02 |              |             |      | B     | 11676           |
| A    | ADDED HEX PLUG                                    | JES 7/03      | JES 2/10/03  |             |      |       |                 |
| REV. | DESCRIPTION                                       | BY            | DATE         |             |      |       |                 |

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SHEET  
1 OF 1

# REPLACEMENT PARTS LIST

| ITEM | PART NO.      | DESCRIPTION   |
|------|---------------|---------------|
| 1    | SE3QRING00001 | QUAD RING     |
| 2    | 1FS05-0000002 | COVER PLATE   |
| 3    | 1HS00-3800001 | RETANING KNOB |



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CHECKED BY:  
JES

SHAFT SEAL AND RETAINER PLATE

100,150 & 200 CAL REPL. PARTS

SIZE: B

DRAWING NUMBER:  
8518

DATE: 2-23-94  
APPROVED BY: NONE  
SCALE: NONE

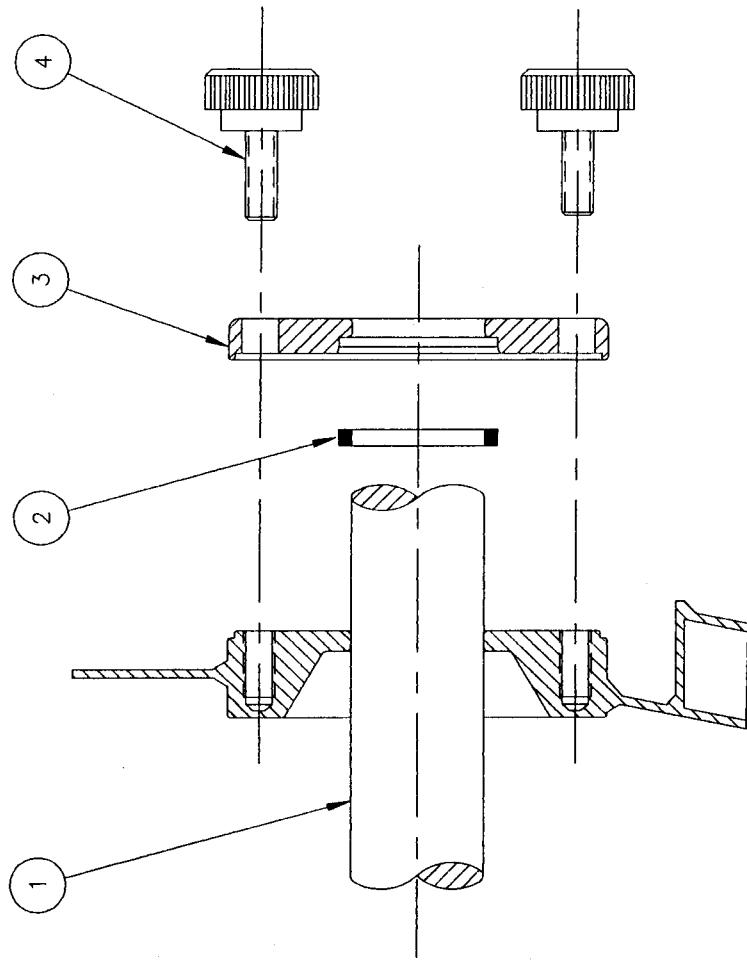
REV. A

SHEET 1 of 1

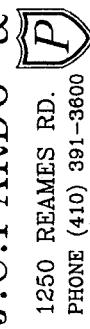
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## REPLACEMENT PARTS LIST

| ITEM | PART NO.      | DESCRIPTION    |
|------|---------------|----------------|
| 1    | 1FS02-7500005 | DRIVE SHAFT    |
| 2    | SE3QRING00002 | QUAD RING      |
| 3    | 1FS05-7500001 | COVER PLATE    |
| 4    | HWS00-3800003 | RETAINING KNOB |



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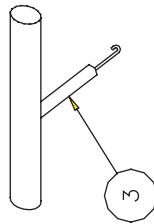
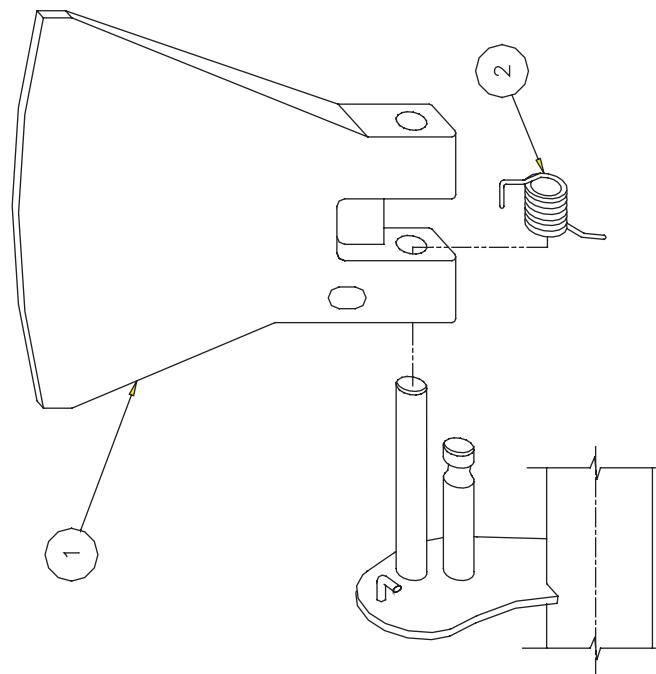
CHECKED BY:

DRAWN BY: JAY S.  
300 GAL REPLACEMENT PARTS  
SHAFT SEAL AND RETAINER PLATE  
SIZE: B  
DRAWING NUMBER: 11185

|              |              |        |
|--------------|--------------|--------|
| APPROVED BY: | DATE: 4-3-96 | REV.   |
| SCALE: NONE  | 16 4/8/96    | 1 OF 1 |

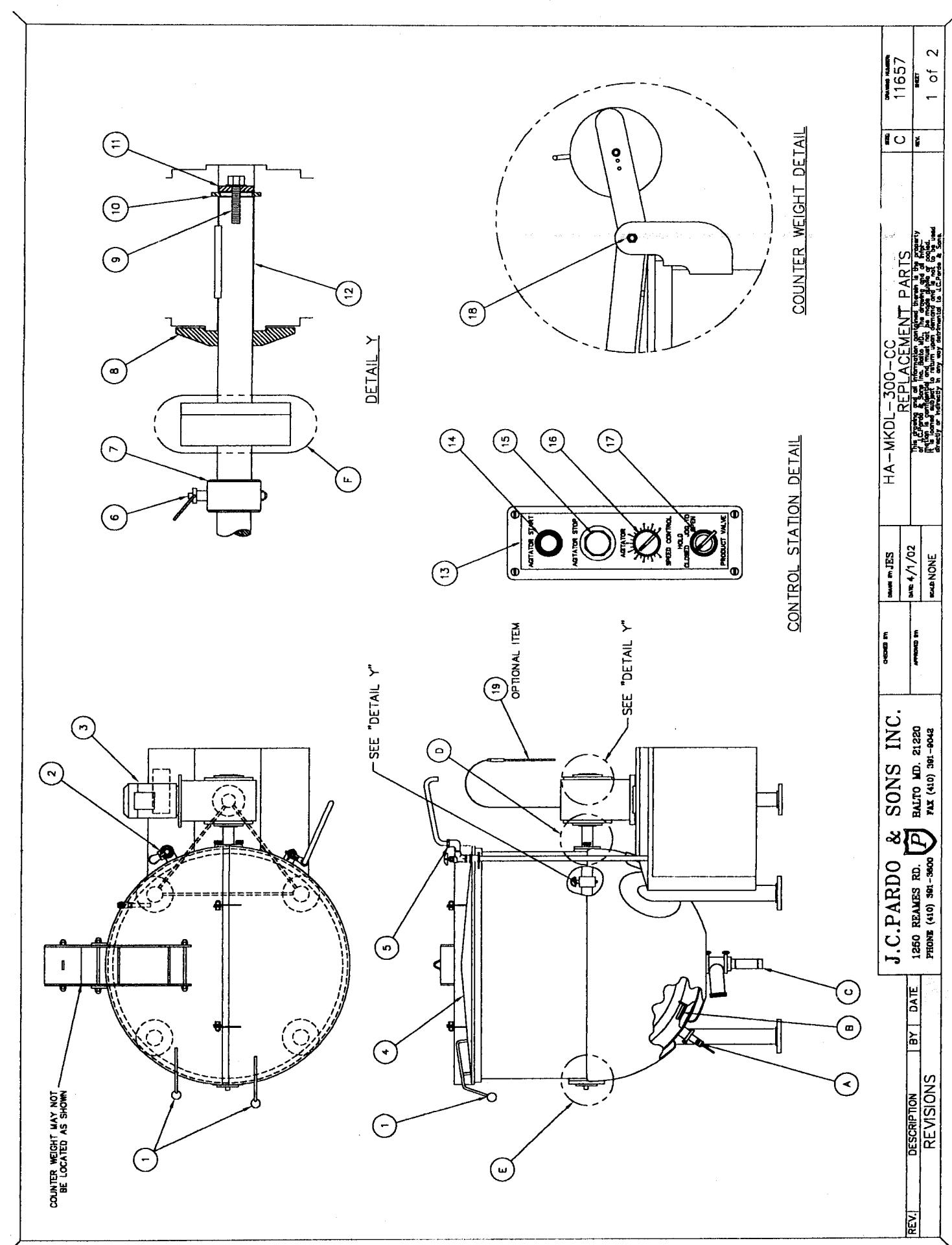
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| REPLACEMENT PARTS LIST |                |                      |
|------------------------|----------------|----------------------|
| ITEM                   | PART NO.       | DESCRIPTION          |
| 1                      | MSW00-75600001 | SCRAPER BLADE        |
| 2                      | MSSPRING00002  | SCRAPER BLADE SPRING |
| 3                      | TOSPRING00001  | SPRING REMOVAL TOOL  |



| REV.      | DESCRIPTION   | BY  | DATE    |
|-----------|---|-----|---------|
| REVISIONS |   |     |         |
| D         | #1 WAS MSW00-8800001  | JES | 4-24-98 |
| C         | #1 WAS 1PW00-7500001  | JES | 1-6-98  |
| B         | REDRAWN FROM PAPER  | LY  | 4/25/95 |
| A         | ITEM #1 WAS PART NO.<br>MSFBLADE00001<br>WAS TEFLON NOW UHMP. | LY  | 3/22/95 |
| REV.      | DESCRIPTION   | BY  | DATE    |

| SCRAPER BLADE ASSEMBLY<br>REPLACEMENT PARTS  |              | SIZE   | DRAWING NUMBER |
|--|--------------|--------|----------------|
| DRAWN BY L. YORI   | DATE 4/25/95 | B      | 8412           |
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| APPROVED BY  | SCALE NONE   | REV. D | SHEET 1 of 1   |
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|      |             |    |      |       |           |           |       |           |           |
|------|-------------|----|------|-------|-----------|-----------|-------|-----------|-----------|
| REV. | DESCRIPTION | BY | DATE | ITEMS | ISSUED IN | ISSUED BY | ITEMS | ISSUED IN | ISSUED BY |
|      | REVISIONS   |    |      |       |           |           |       |           |           |
|      |             |    |      |       |           |           |       |           |           |

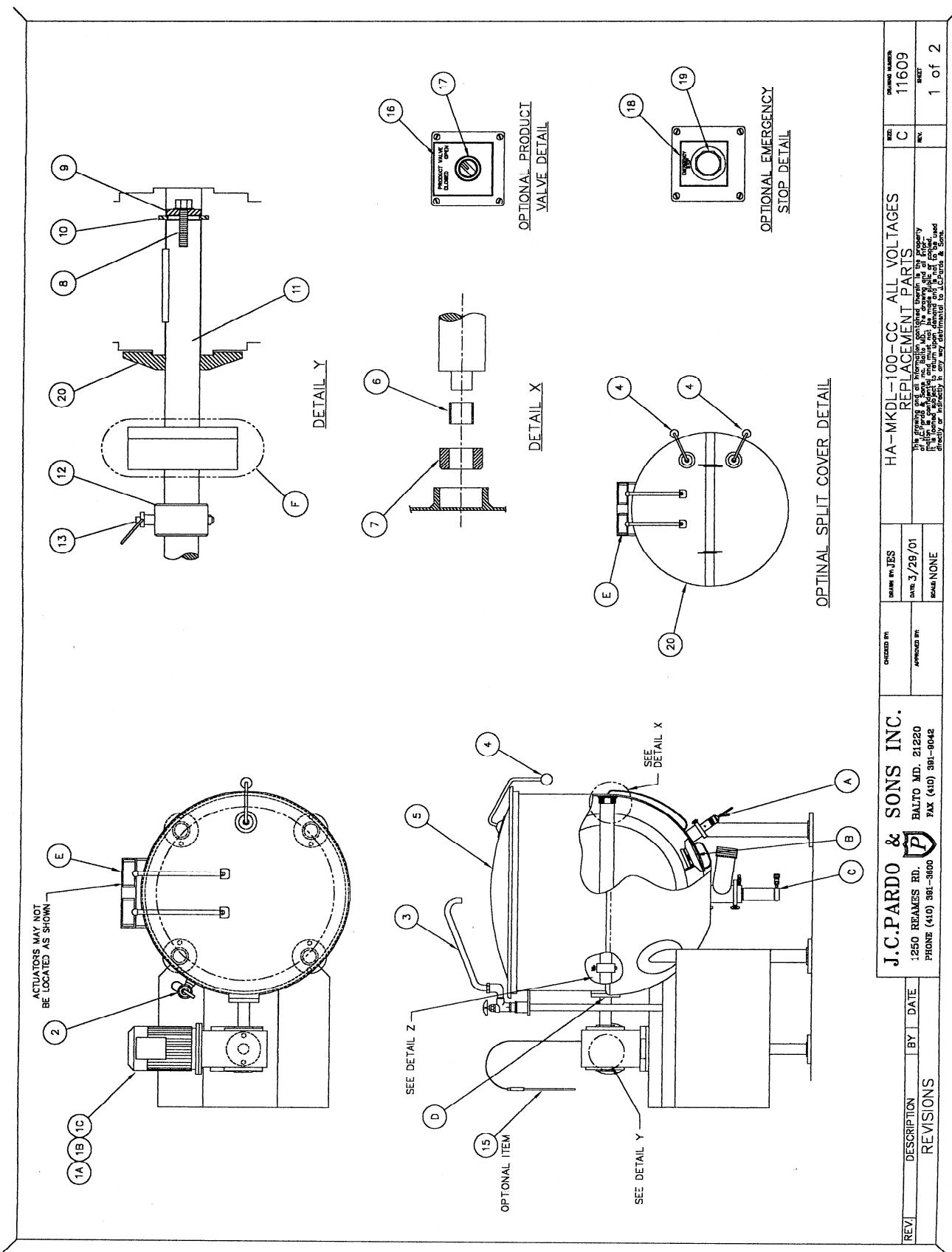
HA-MKDL-300-CC  
REPLACEMENT PARTS

1260 REAMES RD. **P** BALTO MD. 21220  
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11657  
C  
1 of 2

11657  
C  
1 of 2





## REPLACEMENT PARTS LIST

| REPLACEMENT PARTS LIST |                 |                               |               |                |                                   |
|------------------------|-----------------|-------------------------------|---------------|----------------|-----------------------------------|
| REPLACEMENT PARTS LIST |                 |                               |               |                |                                   |
| ITEM                   | PART NO.        | DESCRIPTION                   | ITEM          | PART NO.       | DESCRIPTION                       |
| 1A                     | DUH03-00000007  | 3 HP DRIVE UNIT 208 VOLTS     | 11            | FA02-00000003  | DRIVE SHAFT                       |
| -                      | DU903-00000010  | ELECTRIC MOTOR 208 VOLTS      | 12            | FA02-75000004  | SHAFT COUPLING                    |
| -                      | DU902-00000027  | GEAR BOX                      | 13            | MSS05-50000001 | QUICK RELEASE PIN                 |
| 1B                     | DUH03-00000015  | 3 HP DRIVE UNIT 380 VOLTS     | 14            | TFW05-50000001 | WATER SEAL DEFLECTOR              |
| -                      | DU903-00000009  | ELECTRIC MOTOR 380 VOLTS      | 15            | TSSENSOR00012  | TOP TEMPERATURE PROBE (OPTIONAL)  |
| -                      | DU902-00000029  | GEAR BOX                      | 16            | NPYELLOW0241   | NAMEPLATE (OPTIONAL)              |
| 1C                     | DUH03-00000011  | 3 HP DRIVE UNIT 230/460 VOLTS | 17            | 2EP01-25A0044  | 3 POSITION TURN SWITCH (OPTIONAL) |
| -                      | DU903-00000011  | ELECTRIC MOTOR 230/460 VOLTS  | 18            | NPRED00000025  | NAMEPLATE (OPTIONAL)              |
| -                      | DU902-00000028  | GEAR BOX                      | 19            | 2EP01-25A0016  | RED MUSHROOM P.B. (OPTIONAL)      |
| 2                      | VAB01-00000007  | 100 PSI SAFETY VALVE          | 20            | 1V100GAL0003   | SPLIT COVER (OPTIONAL)            |
| 3                      | PBB00-75000118  | FILL FAUCET                   | DRAWINGS LIST |                |                                   |
| 4                      | MSP02-00000001  | RED BALL                      | ITEM          | DRAWING NO.    | DESCRIPTION                       |
| 5                      | 1FS18-GA00002   | COVER                         | A             | C-11039        | TEMPERATURE SENSOR ASSEMBLY       |
| 6                      | 1FS01-5000004   | IDLER END SLEEVE              | B             | B-8412         | SCRAPER BLADE ASSEMBLY            |
| 7                      | 1-FK02-25000002 | IDLER BUSHING                 | C             | C-11549        | PRODUCT OUTLET VALVE              |
| 8                      | HWS02-00000002  | RETAINING BOLT                | D             | B-8518         | SHAFT SEAL ASSEMBLY               |
| 9                      | HWS02-00000003  | RETAINING WASHER              | E             | B-8539         | HINGE ACTUATOR ASSEMBLY           |
| 1C                     | HWS02-00000004  | RETAINING SNAPE RING          |               |                |                                   |

REPLACEMENT PARTS LIST

| REPLACEMENT PARTS LIST |                |                                   |  |
|------------------------|----------------|-----------------------------------|--|
| ITEM                   | PART NO.       | DESCRIPTION                       |  |
| 11                     | FAS02-0000003  | DRIVE SHAFT                       |  |
| 12                     | FAS02-7500004  | SHAFT COUPLING                    |  |
| 13                     | MSS000-5000001 | QUICK RELEASE PIN                 |  |
| 14                     | 1FW05-5000001  | WATER SEAL DEFLECTOR              |  |
| 15                     | TSSENSOR00012  | TOP TEMPERATURE PROBE (OPTIONAL)  |  |
| 16                     | NPYELLOW00241  | NAMER PLATE (OPTIONAL)            |  |
| 17                     | 2EP01-25A0044  | 3 POSITION TURN SWITCH (OPTIONAL) |  |
| 18                     | NPREDO00000025 | NAMER PLATE (OPTIONAL)            |  |
| 19                     | 2EP01-25A0016  | RED MUSHROOM P.B. (OPTIONAL)      |  |
| 20                     | 1V100GAL00003  | SPLIT COVER (OPTIONAL)            |  |

| DRAWINGS LIST |             |                             |  |
|---------------|-------------|-----------------------------|--|
| ITEM          | DRAWING NO. | DESCRIPTION                 |  |
| A             | C-11039     | TEMPERATURE SENSOR ASSEMBLY |  |
| B             | B-8412      | SCRAPER BLADE ASSEMBLY      |  |
| C             | C-11549     | PRODUCT OUTLET VALVE        |  |
| D             | B-8518      | SHAFT SEAL ASSEMBLY         |  |
| E             | B-8539      | HINGE ACTUATOR ASSEMBLY     |  |

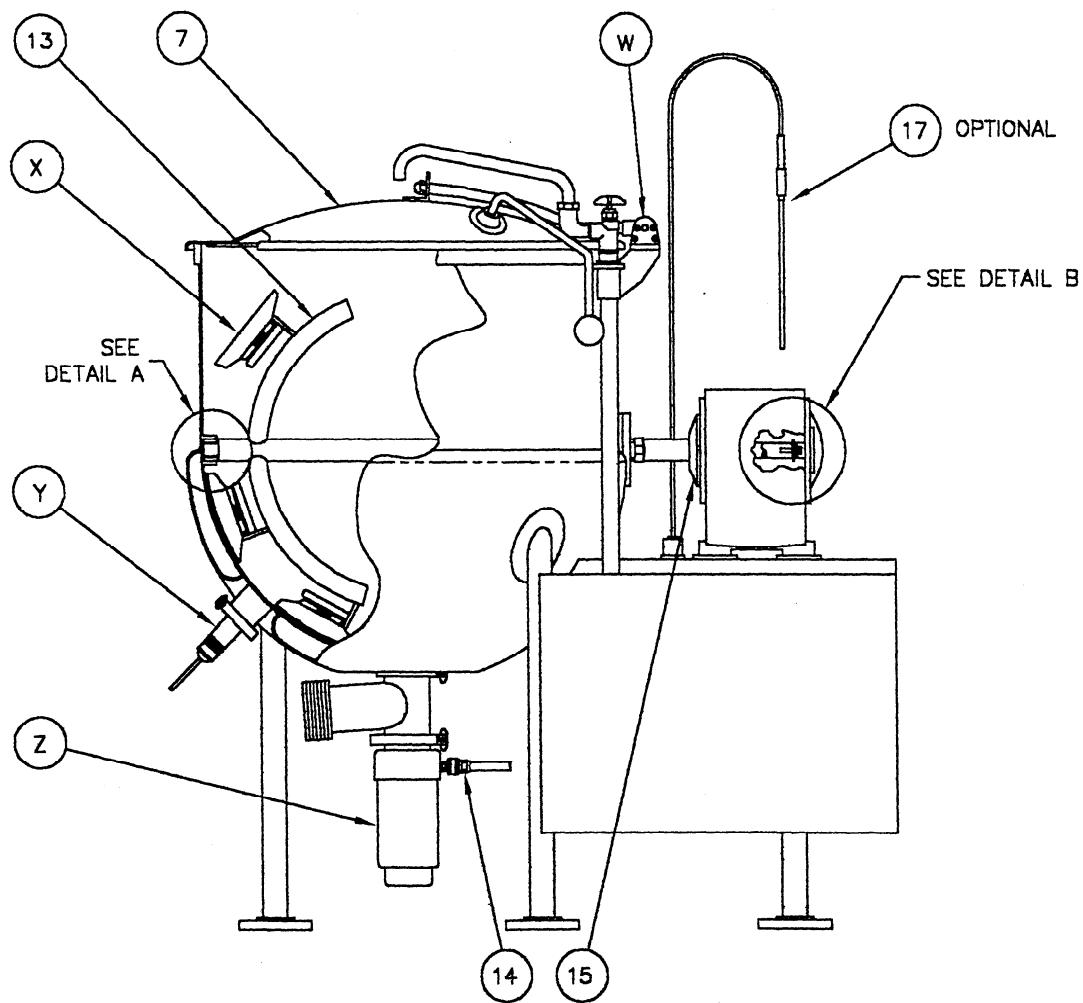
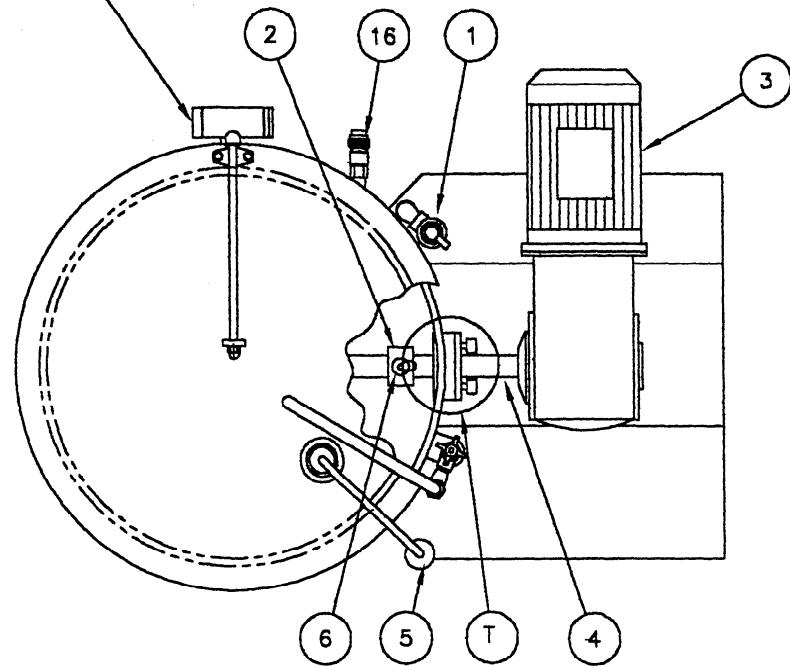
## DRAWINGS LIST

| DRAWINGS LIST |         | ITEM | DRAWING NO. | DESCRIPTION                 |
|---------------|---------|------|-------------|-----------------------------|
| A             | C-11039 |      |             | TEMPERATURE SENSOR ASSEMBLY |
| B             | B-8412  |      |             | SCRAPER BLADE ASSEMBLY      |
| C             | C-11549 |      |             | PRODUCT OUTLET VALVE        |
| D             | B-85118 |      |             | SHAFT SEAL ASSEMBLY         |
| E             | B-85339 |      |             | HINGE ACTUATOR ASSEMBLY     |

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|  |             |    |      |
|--|-------------|----|------|
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| REV.   | DESCRIPTION | BY | DATE |
| REVISIONS  |             |    |      |

ACTUATOR LOCATION  
MAY NOT BE AS SHOWN



J.C.PARDO & SONS INC.

| REV.      | DESCRIPTION | BY | DATE |
|-----------|-------------|----|------|
| REVISIONS |             |    |      |

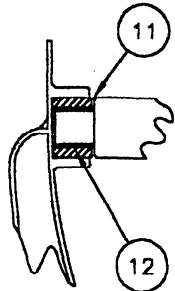
1250 REAMES RD.  
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BALTO MD. 21220  
FAX (410) 391-9042

CHE

APP

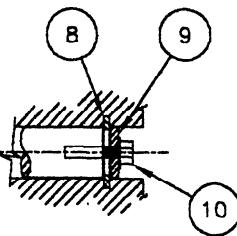


DETAIL A

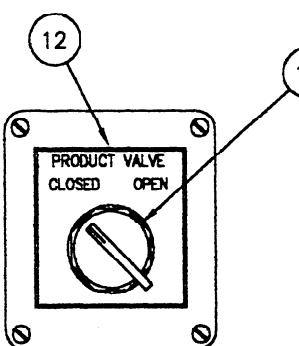
| ITEM | PART NO.      | DESCRIPTION                |
|------|---------------|----------------------------|
| 1    | VAB00-7500005 | SAFETY VALVE               |
| 2    | FAS02-5000003 | SHAFT COUPLING             |
| 3    | DUH02-0000005 | 208 VOLT DRIVE UNIT        |
| -    | DU902-0000003 | 208 VOLT ELECTRIC MOTOR    |
| -    | DU901-5000004 | GEARBOX                    |
| 4    | FAS01-5000004 | DRIVE SHAFT                |
| 5    | MSP02-0000001 | RED BALL                   |
| 6    | MSS00-3700003 | QUICK RELEASE PIN          |
| 7    | 1FS18-GA00003 | KETTLE COVER               |
| 8    | HWS01-5000003 | RETAINING RING             |
| 9    | HWS01-5000001 | RETAINING WASHER           |
| 10   | HWS01-5000002 | RETAINING BOLT             |
| 11   | 1FK02-0000004 | IDLER BUSHING              |
| 12   | 1FS01-2500003 | IDLER END SLEEVE           |
| 13   | 1G050GAL00005 | AGITATOR                   |
| 14   | ARB00-2500017 | AIR QUICK DISCONNECT       |
| 15   | 1FW03-5000001 | MOTOR SEAL WATER DEFLECTOR |
| 16   | ABR00-5000001 | AIR QUICK DISCONNECT       |
| 17   | TSSENSOR00012 | TOP SENSOR (OPTIONAL)      |

### DRAWINGS FOR REPLACEMENT PARTS

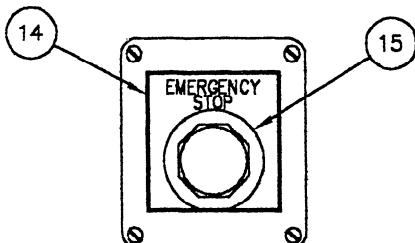
| ITEM | DRAWING NO.    | DESCRIPTION                 |
|------|----------------|-----------------------------|
| T    | B-11023        | SHAFT SEAL & RETAINER PLATE |
| W    | B-8539         | HINGE ACTUATOR ASSEMBLY     |
| X    | B-8412 REV. B  | SCRAPER BLADE ASSEMBLY      |
| Y    | C-11039 REV. A | TEMPERATURE SENSOR          |
| Z    | C-11200        | PRODUCT OUTLET VALVE        |



DETAIL B



OPTIONAL  
PRODUCT VALVE  
SWITCH DETAIL



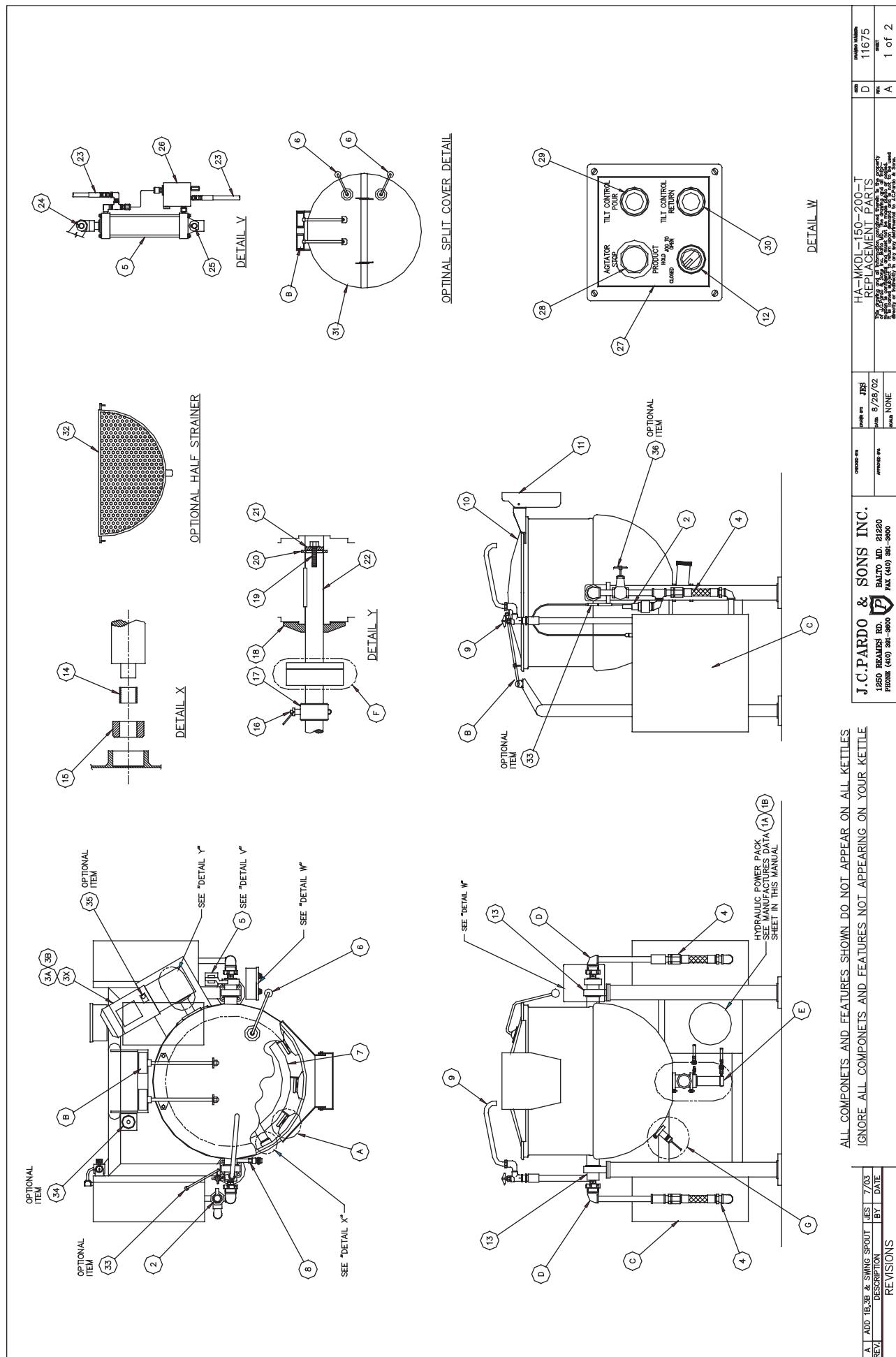
OPTIONAL  
E-STOP DETAIL

|             |                  |
|-------------|------------------|
| RECKED BY:  | DRAWN BY: JAY S. |
| PROVED BY:  | DATE: 2-4-00     |
| SCALE: NONE |                  |

### HA-MKDL-60-CC 208V REPLACEMENT PARTS

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|         |                       |
|---------|-----------------------|
| SIZE: C | DRAWING NUMBER: 11522 |
| REV. 1  | SHEET 1 of 1          |



ALL COMPONENTS AND FEATURES SHOWN DO NOT APPEAR ON ALL KETTLES  
 IGNORE ALL COMPONENTS AND FEATURES NOT APPEARING ON YOUR KETTLE

#### REPLACEMENT PARTS LIST

| ITEM | PART NO.      | DESCRIPTION                         |
|------|---------------|-------------------------------------|
| 1A   | HY800-0000014 | HYDRAULIC POWER PACK 208/230/460 V  |
| —    | HY8VA-0000032 | REPLACEMENT SOLENOID FOR ITEM #1A   |
| —    | SP988-8800034 | REPLACEMENT COIL FOR ITEM #1A       |
| 1B   | HY800-0000016 | HYDRAULIC POWER PACK 380 V          |
| —    | HY8VA-0000032 | REPLACEMENT SOLENOID FOR ITEM #1B   |
| —    | SP988-8800034 | REPLACEMENT COIL FOR ITEM #1B       |
| 2    | VAB01-2500001 | SAFETY VALVE, 100 PSI               |
| 3    | —             | SEE DRIVE UNIT LIST                 |
| 4    | PBS01-2500031 | STAINLESS STEEL FLEX HOSE           |
| 5    | HYS02-5000002 | HYDRAULIC TILT CYLINDER             |
| 6    | NSP02-0000001 | RED BALL                            |
| 7    | 1G200GAL00005 | AGITATOR                            |
| 8    | ARB00-5000001 | AIR QUICK DISCONNECT                |
| 9    | PBB00-7500018 | FILL FAUCET                         |
| —    | PBB00-7500021 | REPLACEMENT SWING SPOUT FOR ITEM #9 |
| 10   | —             | KETTLE COVER                        |
| —    | 1FS18-GA00005 | 150-GAL KETTLE COVER                |
| —    | 1FS18-GA00001 | 200-GAL KETTLE COVER                |
| 11   | 1FS01-0000002 | FLOW DIVERTER                       |
| 12   | 2EP01-25A0022 | 3 POSITION SWITCH                   |
| 13   | BGZ03-5000001 | PILLOW BLOCK                        |
| 14   | 1FS01-7500030 | IDLER SLEEVE                        |
| 15   | 1FK02-500002  | IDLER BEARING                       |
| 16   | MSS00-5000001 | QUICK RELEASE PIN                   |
| 17   | 1FS02-7500012 | SHAFT COUPLING                      |
| 18   | 1FW05-5000002 | MOTOR SEAL WATER DEFLECTOR          |
| 19   | HWS02-3800002 | RETAINING BOLT                      |
| 20   | HWS02-3800003 | RETAINING SNAP RING                 |
| 21   | HWS02-3800001 | RETAINING WASHER                    |
| 22   | 1FS02-3800006 | DRIVE SHAFT                         |
| 23   | 1YD00-3700001 | 3/8" HYDRAULIC HOSE ASSY: *         |
| 24   | HWS01-0000003 | TOP PIN                             |
| 25   | HWS00-7500013 | BOTTOM PIN                          |
| 26   | HY8VA-0000007 | OVER CENTER VALVE                   |
| 27   | NPYELLOW00216 | FUNCTION TAG                        |
| 28   | 2EP01-25A0014 | RED MUSHROOM PUSH BUTTON            |
| 29   | 2EP01-25A0001 | YELLOW PUSH BUTTON                  |

#### REPLACEMENT PARTS LIST

| ITEM | PART NO.       | DESCRIPTION                    |
|------|----------------|--------------------------------|
| 30   | 2EP01-25A0002  | BLUE PUSH BUTTON               |
| 31   | —              | 2 PIECE SPLIT COVER (OPTIONAL) |
| —    | 1V150GAL00001  | 150 GAL SPLIT COVER            |
| —    | 1V200GAL00003  | 200 GAL SPLIT COVER (OPTIONAL) |
| 32   | —              | HALF SCREEN (OPTIONAL)         |
| —    | 2BSCREEN00017  | 150 GAL HALF SCREEN            |
| —    | 2BSCREEN00016  | 200 GAL HALF SCREEN            |
| 33   | TSSENDER000012 | TOP TEMP. PROBE (OPTIONAL)     |
| 34   | ELV01-15000018 | STROBE LIGHT (OPTIONAL)        |
| 35   | ELV00-0000014  | MOTOR KILL SWITCH (OPTIONAL)   |
| 36   | PBB01-2500023  | MANUAL GLOVE VALVE (OPTIONAL)  |

#### DRAWING LIST

| ITEM | DRAWING NO. | DESCRIPTION        |
|------|-------------|--------------------|
| A    | B-8412      | SCRAPER BLADE      |
| B    | B-8415      | LID ACTUATOR       |
| C    | C-11576     | PLUMBING           |
| D    | C-11079     | BARCO JOINT        |
| E    | D-11642     | PRODUCT VALVE      |
| F    | B-11676     | SHAFT SEAL         |
| G    | C-11077     | TEMPERATURE SENSOR |

#### DRIVE UNIT LIST

| ITEM | PART NO.       | DESCRIPTION                    |
|------|----------------|--------------------------------|
| —    | —              | 150 GAL. DRIVE UNIT BY VOLTAGE |
| 3A   | DUH03-00000019 | DRIVE UNIT. 3 HP 208V          |
| —    | DU903-00000013 | 3 HP ELECTRIC MOTOR, 208V      |
| —    | DU902-3800017  | GEAR BOX                       |
| 3B   | DUH03-00000021 | DRIVE UNIT, 3 HP 380V          |
| —    | DU903-00000034 | 3 HP ELECTRIC MOTOR, 380V      |
| —    | DU902-3800018  | GEAR BOX                       |
| —    | —              | 200 GAL. DRIVE UNIT BY VOLTAGE |
| 3X   | DUH05-0000015  | DRIVE UNIT, 5 HP 208V          |
| —    | DU905-00000005 | 5 HP ELECTRIC MOTOR, 208V      |
| —    | DU902-3800013  | GEAR BOX                       |

MOTOR HP FOR THIS JOB IS



: 3 HP.

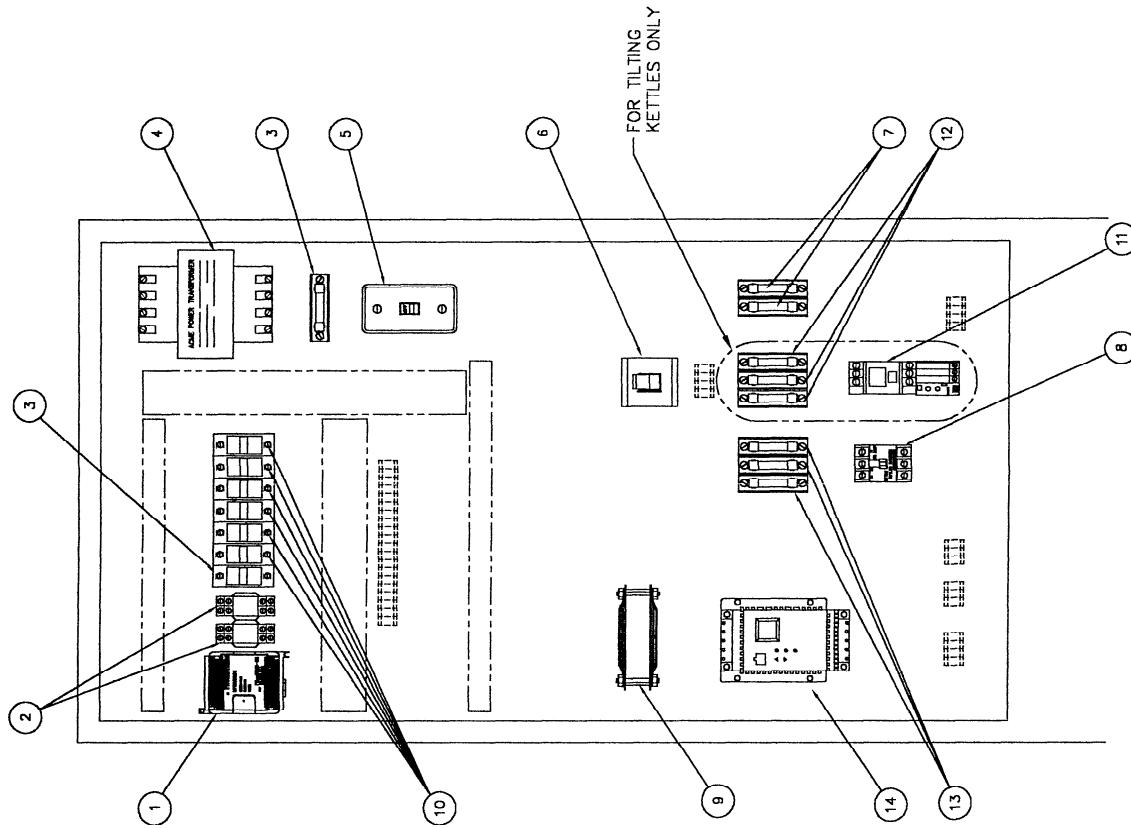
VOLTAGE FOR THIS JOB IS

: 380 V-3 PH- 50 Hz.

\* CUSTOMER TO SPECIFY HOSE ASSEMBLY LENGTH.

| REV. | ADD 1B,JB & SWING SPOUT | 8/26/03 |
|------|-------------------------|---------|
|      |                         |         |
|      | REVISIONS               |         |

| HA-MKD1-150-200-T    |                      | HA-MKD1-150-200-T    |                      |
|----------------------|----------------------|----------------------|----------------------|
| REPLACEMENT PARTS    |                      | REPLACEMENT PARTS    |                      |
| ITEM NO.             | ITEM NO.             | ITEM NO.             | ITEM NO.             |
| REV.                 | REV.                 | REV.                 | REV.                 |
| 8/26/03              | 8/26/03              | 8/26/03              | 8/26/03              |
| BA1220               | BA1220               | BA1220               | BA1220               |
| PHONE (410) 384-3800 | PHONE (410) 384-3800 | PHONE (410) 384-3800 | PHONE (410) 384-3800 |
|                      |                      |                      |                      |
| D                    | D                    | D                    | D                    |
| 11675                | 11675                | 11675                | 11675                |
| REV.                 | REV.                 | REV.                 | REV.                 |
| A                    | A                    | A                    | A                    |
| 2 of 2               | 2 of 2               | 2 of 2               | 2 of 2               |



|   |             |         |                 |
|---|-------------|---------|-----------------|
| <b>J.C.PARDO &amp; SONS INC.</b>  |             |         |                 |
|  |             |         |                 |
| 1250 REAMES RD. <b>BALTO MD. 21220</b><br>PHONE (410) 391-3600 FAX (410) 391-8042     |             |         |                 |
| REV.  | DESCRIPTION | BY      | DATE            |
|   | REVISIONS   |         |                 |
| <b>SINGLE CONTROL PANEL ALL Voltages</b>  |             |         |                 |
| <b>INTERNAL REPLACEMENT PARTS</b>   |             |         |                 |
| CREATED BY  | DESIGN BY   | REV.    | PRINTING NUMBER |
|   | JES         | 3/29/01 | C 11608         |
| APPROVED BY   | SCALE       | NON-E   | SET             |
|   |             |         | 1 of 2          |

UNIVERSAL REPLACEMENT PARTS

| 60 GAL. REPLACEMENT PARTS |                                       |
|---------------------------|---------------------------------------|
| ITEM                      | PART NO.                              |
| 13                        | ---                                   |
|                           | FUSES BY VOLTAGE                      |
| -                         | ELVG6-0000007 20 AMP FUSE 208/230V    |
| -                         | ELVG6-0000010 10 AMP FUSE 380/460V    |
| 14                        | ---                                   |
|                           | INVERTER BY VOLTAGE                   |
| -                         | ELH02-0000008 2 HP INVERTER, 208/230V |
| -                         | ELH02-0000009 2 HP INVERTER, 380/460V |

| 100 GAL. REPLACEMENT PARTS |             |
|----------------------------|-------------|
| ITEM                       | PART NO.    |
|                            | DESCRIPTION |

## OPTIONAL TILTING KETTLE PARTS

| ITEM |                | PART NO. | DESCRIPTION                      | ITEM                             | PART NO. | DESCRIPTION |
|------|----------------|----------|----------------------------------|----------------------------------|----------|-------------|
| 11   | ELPSW-00000005 |          | HYDRAULIC MOTOR STARTER          |                                  |          |             |
| -    | ELV00-0000013  |          | HEATER PACK FOR ITEM #9 208/230V |                                  |          |             |
| -    | ELV00-0000023  |          | HEATER PACK FOR ITEM #9 380/460V |                                  |          |             |
| 12   | ELV06-0000015  |          | 3 AMP FUSE                       |                                  |          |             |
|      |                |          |                                  | 150 / 200 GAL. REPLACEMENT PARTS |          |             |
|      |                |          |                                  |                                  |          |             |

## 60 GAL. REPLACEMENT PARTS

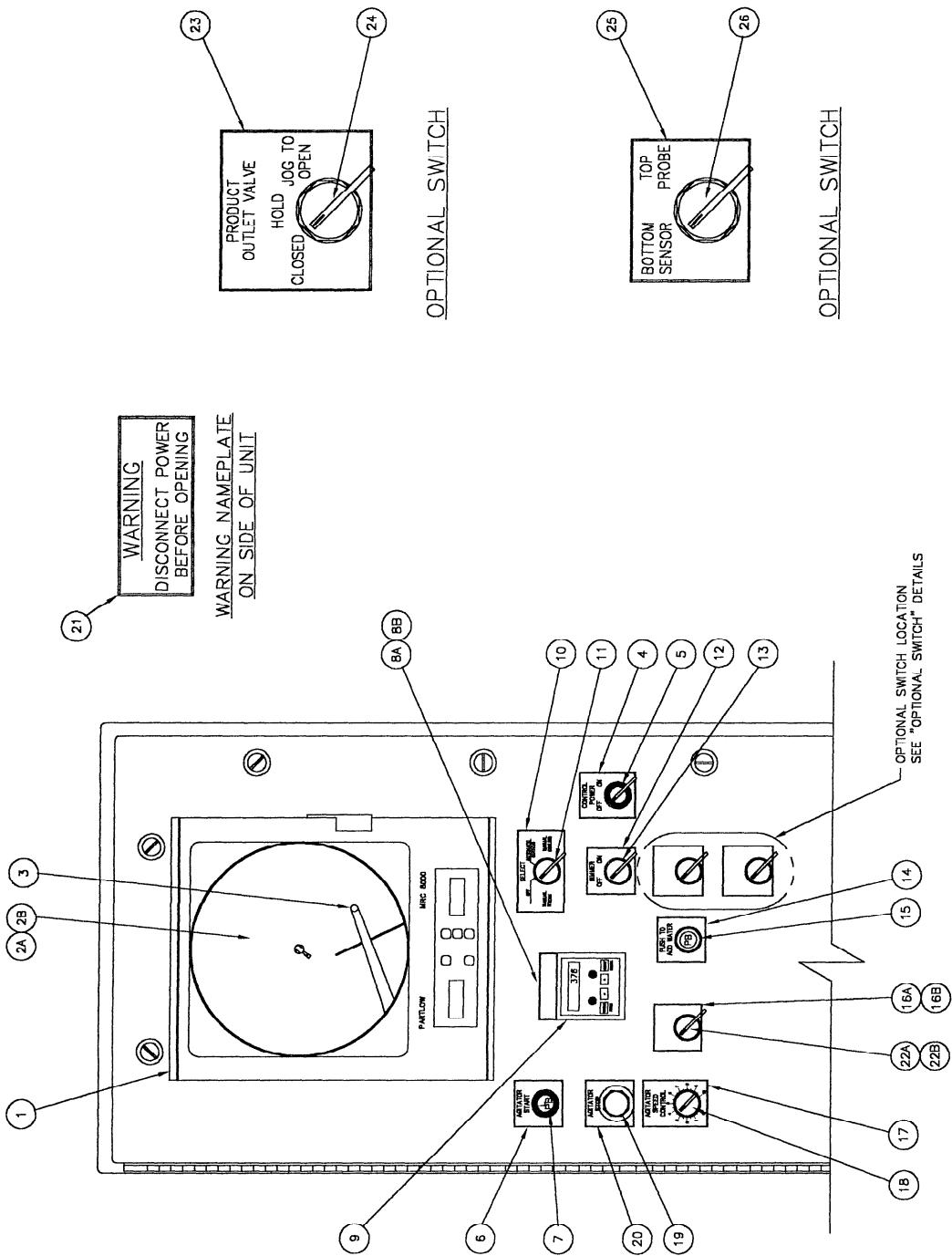
| 60 GAL. REPLACEMENT PARTS |                 |                         |
|---------------------------|-----------------|-------------------------|
| ITEM                      | PART NO.        | DESCRIPTION             |
| 13                        | ---             | FUSES BY VOLTAGE        |
| -                         | ELVG06-00000007 | 20 AMP FUSE 20B/230V    |
| -                         | ELVG06-00000010 | 10 AMP FUSE 380/460V    |
| 14                        | ---             | INVERTER BY VOLTAGE     |
| -                         | ELHQ02-00000008 | 2 HP INVERTER, 20B/230V |
| -                         | ELHQ02-00000009 | 2 HP INVERTER, 380/460V |

150 /200 GA | BEEPI AGREEMENT PABTS

| 150/200 GAL. REPLACEMENT PARTS |                |                         |
|--------------------------------|----------------|-------------------------|
| ITEM                           | PART NO.       | DESCRIPTION             |
| 13                             | ---            | FUSES BY VOLTAGE        |
| -                              | ELVG6-00000018 | 30 AMP FUSE 208/230V    |
| -                              | ELVG6-0000004  | 15 AMP FUSE 380/460V    |
| 14                             | ---            | INVERTER BY VOLTAGE     |
| -                              | ELH05-0000013  | 5 HP INVERTER, 208/230V |
| -                              | ELH05-0000014  | 5 HP INVERTER, 380/460V |

J.C.PARDO & SONS INC.

REV. 1 DESCRIPTION REVISIONS BY DATE  
 1250 BRAEKS RD. — PHONE (410) 381-3800  
J. C. L. HANCOCK & SONS INC. BALTO (440) 391-1042  
PA FAX (440) 391-0422



|      |                                 |             |              |                |
|------|---------------------------------|-------------|--------------|----------------|
| REV. | DESCRIPTION                     | BY          | DATE         | DRAWING NUMBER |
|      | J. C. PARDO & SONS INC.         | JOHN JAY S. | DATE 1-13-99 | C 11601        |
|      | 1550 REAMES RD. BALTO MD. 21220 | APPROVED IN | SCALE NONE   | REVIS.         |
|      | PHONE (410) 391-8042            |             |              | 1 of 2         |

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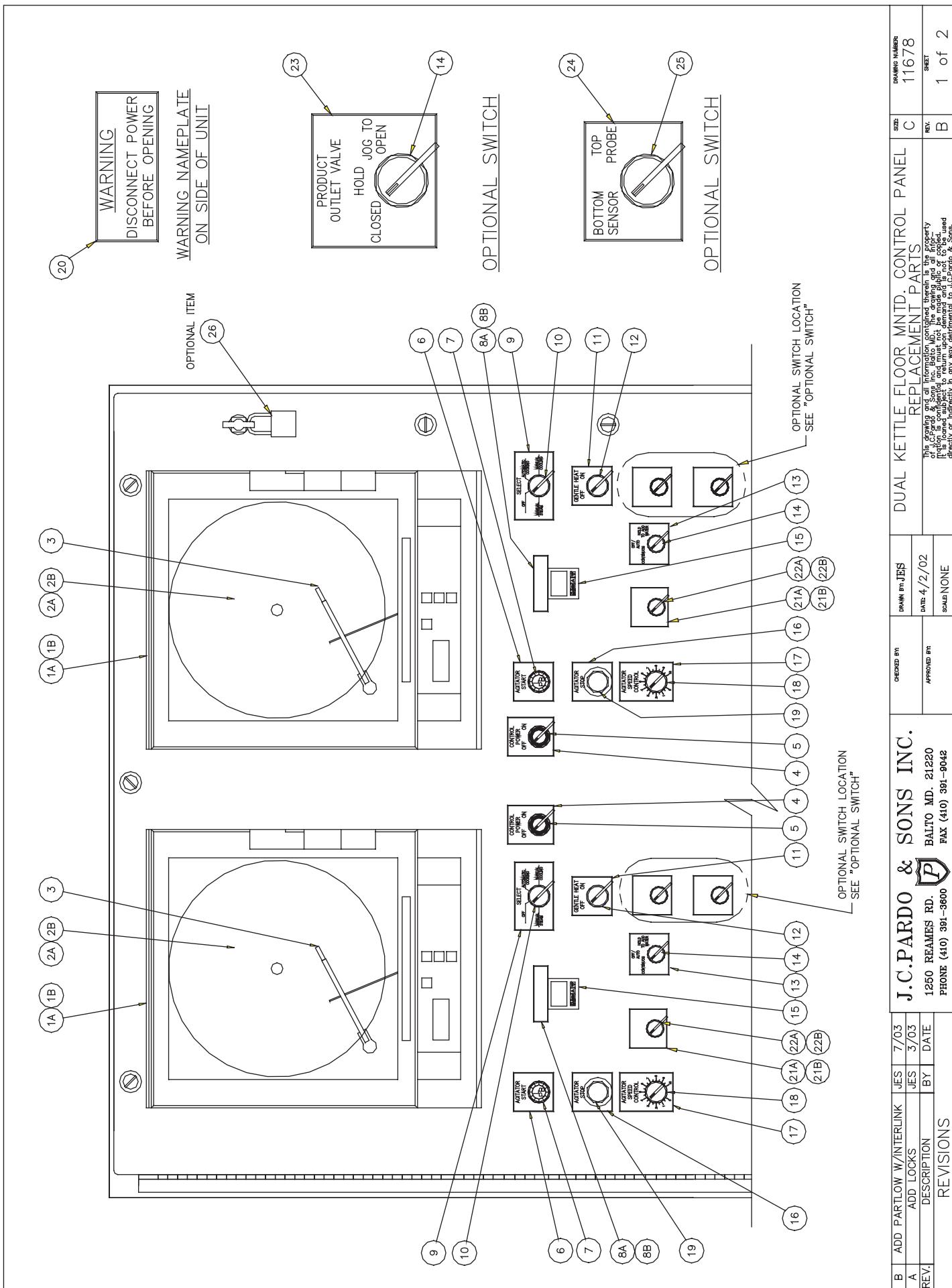
## REPLACEMENT PARTS

| ITEM | PART NO.      | DESCRIPTION                      |
|------|---------------|----------------------------------|
| 1    | EL8C0-0000042 | PARTLOW 8000                     |
| -    | EL977-7700019 | REPLACEMENT PEN MOTOR ITEM #1    |
| -    | EL977-7700018 | REPLACEMENT CHART MOTOR ITEM #1  |
| -    | EL977-7700020 | REPLACEMENT TOUCH PAD COVER      |
| 2A   | MSJ00-0000005 | 24 HOUR CHART PAPER 'F'          |
| 2B   | MSJ00-0000006 | 24 HOUR CHART PAPER 'C'          |
| 3    | MSP00-0000002 | RED REPLACEMENT PEN              |
| 4    | NPYELLOW00110 | NAMEPLATE                        |
| 5    | 2EP00-8800038 | RED LIGHTED TURN SWITCH          |
| -    | ELV00-6000001 | REPLACEMENT BULB FOR ITEM #5     |
| 6    | NPYELLOW00103 | NAMEPLATE                        |
| 7    | 2EP00-8800047 | GREEN LIGHTED PUSH BUTTON        |
| -    | ELV00-1200001 | REPLACEMENT BULB FOR ITEM #7     |
| 8A   | NPYELLOW00116 | NAMEPLATE IN GALLONS             |
| 8B   | NPYELLOW00155 | NAMEPLATE IN LITERS              |
| 9    | EL8C0-0000045 | DIGITAL ATC WATER METER          |
| 10   | NPYELLOW00111 | NAMEPLATE                        |
| 11   | ELP00-8800001 | FOUR POSITION SWITCH             |
| 12   | NPYELLOW00107 | NAMEPLATE                        |
| 13   | 2EP00-8800006 | TWO POSITION SWITCH              |
| 14   | NPYELLOW00106 | NAMEPLATE                        |
| 15   | 2EP00-8800007 | BLACK PUSH BUTTON                |
| 16A  | NPYELLOW00119 | NAMEPLATE COLD POTABLE WATER     |
| 16B  | NPYELLOW00109 | NAMEPLATE HOT/COLD POTABLE WATER |
| 17   | NPYELLOW00115 | NAMEPLATE                        |
| 18   | ELP00-8800003 | SPEED POT                        |
| 19   | 2EP00-8800019 | RED MUSHROOM PUSH BUTTON         |
| 20   | NPYELLOW00104 | NAMEPLATE                        |
| 21   | NPRED00000019 | NAMEPLATE WARNING                |
| 22A  | 2EP00-8800009 | TWO POSITION SWITCH              |
| 22B  | 2EP00-8800022 | THREE POSITION SWITCH            |
| 23   | NPYELLOW00241 | NAMEPLATE (OPTIONAL)             |
| 24   | 2EP00-8800044 | THREE POSITION SWITCH (OPTIONAL) |
| 25   | NPYELLOW00194 | NAMEPLATE (OPTIONAL)             |
| 26   | 2EP00-8800043 | TWO POSITION SWITCH (OPTIONAL)   |

| J.C.PARDO & SONS INC.   |  | CREATED BY:  | CREATED DATE:  | REVISIONS    | REVISION DATE: | REVISION NUMBER: |
|---|--|--------------|----------------|--------------|----------------|------------------|
| 1250 BEAMERS RD. <br>BALTIMORE, MD 21220<br>PHONE (410) 391-3800 |  | APPROVED BY: | APPROVED DATE: | APPROVED BY: | APPROVED DATE: | APPROVED NUMBER: |

| REV. | DESCRIPTION | BY | DATE |
|------|-------------|----|------|
|      | REVISIONS   |    |      |

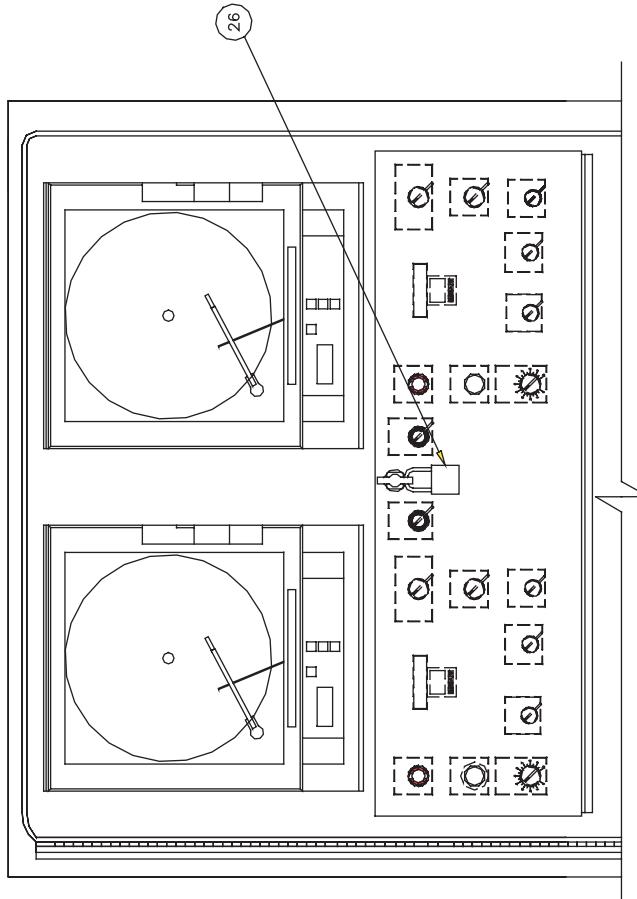
REPLACEMENT PARTS  
C  
11601  
REV. 2 of 2



| B    | ADD PARTLOW W/INTERLINK | JES | 7/03 | DRAWN BY: JES   | REV.:              | 11678  |
|------|-------------------------|-----|------|---|--------------------|--------|
| A    | ADD LOCKS               | JES | 3/03 | APPROVED BY: DATE   | REV.:              | 1 of 2 |
| REV. | DESCRIPTION             | BY  | DATE | PHONE (410) 391-3600  | FAX (410) 391-9042 | SEE    |
|      | REVISIONS               |     |      | J.C.PARDO & SONS INC.   |                    |        |
|      |                         |     |      | 1250 REAMES RD.  |                    |        |
|      |                         |     |      | PHONE (410) 391-3600  |                    |        |
|      |                         |     |      | FAX (410) 391-9042  |                    |        |

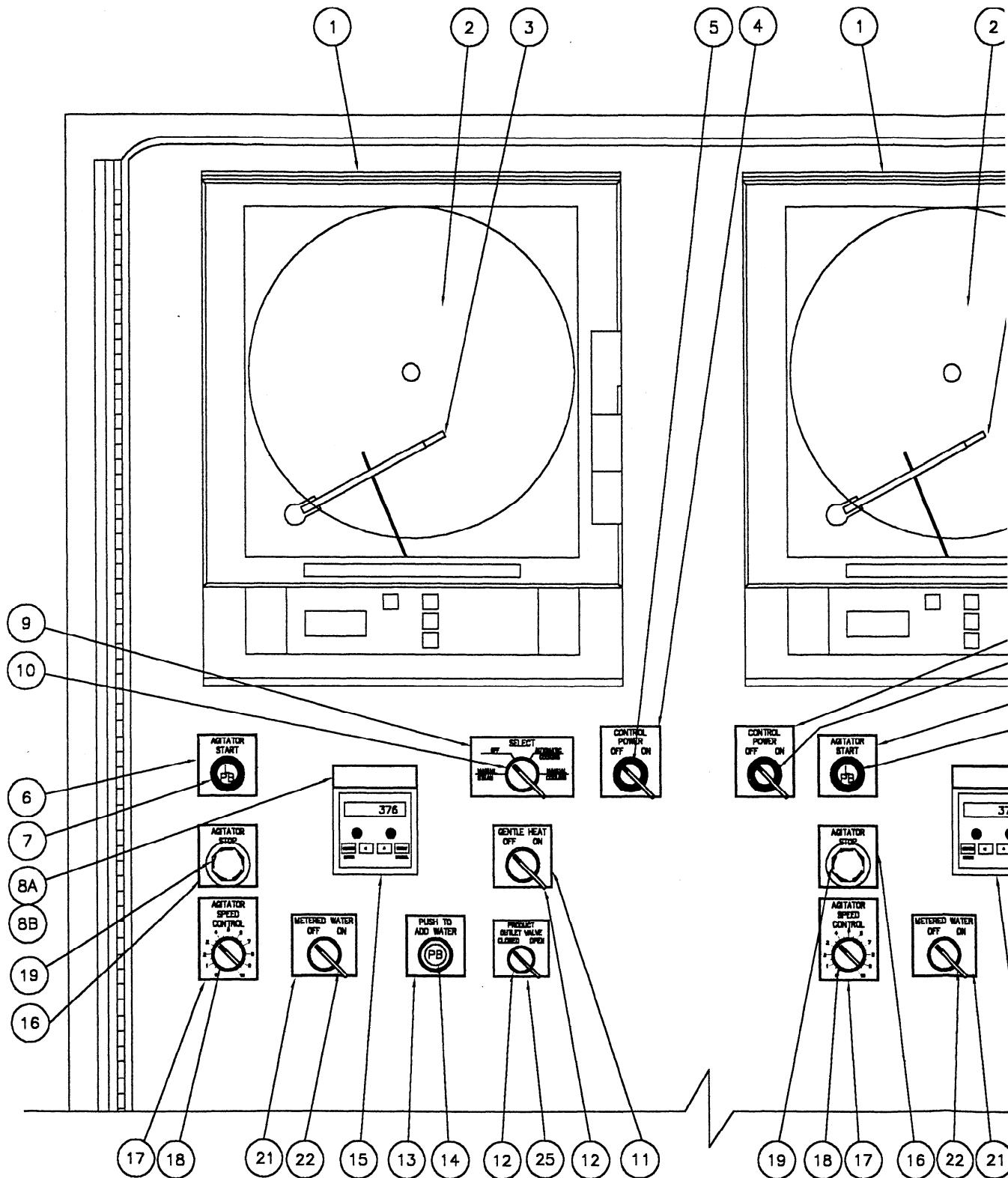
## REPLACEMENT PARTS

| ITEM | PART NO.      | DESCRIPTION                        |
|------|---------------|------------------------------------|
| 1A   | EL8CO-0000042 | PARTLOW 8000                       |
| 1B   | EL8CO-0000070 | PARTLOW 8000 W/INTERLINK(OPTIONAL) |
| -    | EL977-7700019 | REPLACEMENT PEN MOTOR: #1A,1B      |
| -    | EL977-7700018 | REPLACEMENT CHART MOTOR: #1A,1B    |
| -    | EL977-7700020 | REPLACEMENT TOUCH PAD: 1A,1B       |
| -    | ELP00-0000037 | REPLACEMENT DOOR: #1A,1B           |
| -    | ELP00-0000036 | REPLACEMENT DOOR WINDOW: #1A,1B    |
| 2A   | MSJ00-0000005 | 24 HOUR CHART PAPER 'F'            |
| 2B   | MSJ00-0000006 | 24 HOUR CHART PAPER 'C'            |
| 3    | MSP00-0000002 | RED REPLACEMENT PEN                |
| 4    | NPYELLOW00110 | NAMEPLATE                          |
| 5    | 2EP00-8800025 | RED LIGHTED TURN SWITCH            |
| -    | ELV00-6000001 | REPLACEMENT BULB FOR ITEM #5       |
| 6    | NPYELLOW00103 | NAMEPLATE                          |
| 7    | 2EP00-8800047 | GREEN LIGHTED PUSH BUTTON          |
| -    | ELV00-1200001 | REPLACEMENT BULB FOR ITEM #7       |
| 8A   | NPYELLOW00116 | NAMEPLATE IN GALLONS               |
| 8B   | NPYELLOW00155 | NAMEPLATE IN LITERS                |
| 9    | NPYELLOW00111 | NAMEPLATE                          |
| 10   | ELP00-8800001 | FOUR POSITION SWITCH               |
| 11   | NPYELLOW00107 | NAMEPLATE                          |
| 12   | 2EP00-8800006 | TWO POSITION SWITCH                |
| 13   | NPYELLOW00260 | NAMEPLATE                          |
| 14   | 2EP00-8800044 | THREE POSITION SWITCH              |
| 15   | EL8CO-0000067 | DIGITAL REDLION WATER COUNTER      |
| -    | ELV02-5000019 | REPLACEMENT .315A FUSE ITEM #15    |
| 16   | NPYELLOW00104 | NAMEPLATE                          |
| 17   | NPYELLOW00115 | NAMEPLATE                          |
| 18   | ELP00-8800003 | SPEED POT                          |
| 19   | 2EP00-8800019 | RED MUSHROOM PUSH BUTTON           |
| 20   | NPRED00000019 | NAMEPLATE WARNING                  |
| 21A  | NPYELLOW00119 | NAMEPLATE                          |
| 21B  | NPYELLOW00109 | NAMEPLATE (OPTIONAL)               |
| 22A  | 2EP00-8800009 | TWO POSITION SWITCH                |
| 22B  | 2EP00-8800022 | THREE POSITION SWITCH (OPTIONAL)   |
| 23   | NPYELLOW00241 | NAMEPLATE (OPTIONAL)               |
| 24   | NPYELLOW00194 | NAMEPLATE (OPTIONAL)               |
| 25   | 2EP00-8800043 | TWO POSITION SWITCH (OPTIONAL)     |
| 26   | HWLOCKS00001  | PADLOCK AND KEY SET                |



OPTIONAL SWITCH COVER

|      |                         |          |   |                    |                   |   |         |                       |
|------|-------------------------|----------|---|--------------------|-------------------|---|---------|-----------------------|
| B    | ADD PARTLOW W/INTERLINK | JES 7/03 | J.C.PARDO & SONS INC.   | CHECKED BY: JES    | DRAWN BY: JES     | DUAL KETTLE FLOOR MNTD. CONTROL PANEL   | size: C | DRAWING NUMBER: 11678 |
| A    | ADD LOCKS               | JES 3/03 |   | APPROVED BY: DATE  | APPROVED BY: DATE | REPLACEMENT PARTS   | REV. B  | sheet 1 of 2          |
| REV. | DESCRIPTION             | BY DATE  | 1250 REAMES RD.  BALTO MD. 21220 | APPROVED BY: DATE  | APPROVED BY: DATE | This drawing and all information contained therein is the property of J.C. Pardo & Sons Inc. It is confidential and must not be reproduced or copied. It is loaned to the customer and must not be made available to any third party. It is the customer's responsibility to return upon demand and is not to be used directly or indirectly in any way detrimental to J.C. Pardo & Sons Inc. | REV. B  | sheet 2 of 2          |
|      | REVISIONS               |          | PHONE (410) 391-3860  | FAX (410) 391-9042 | SCALE: NONE       |   |         |                       |



| REV.      | DESCRIPTION | BY | DATE |
|-----------|-------------|----|------|
| REVISIONS |             |    |      |

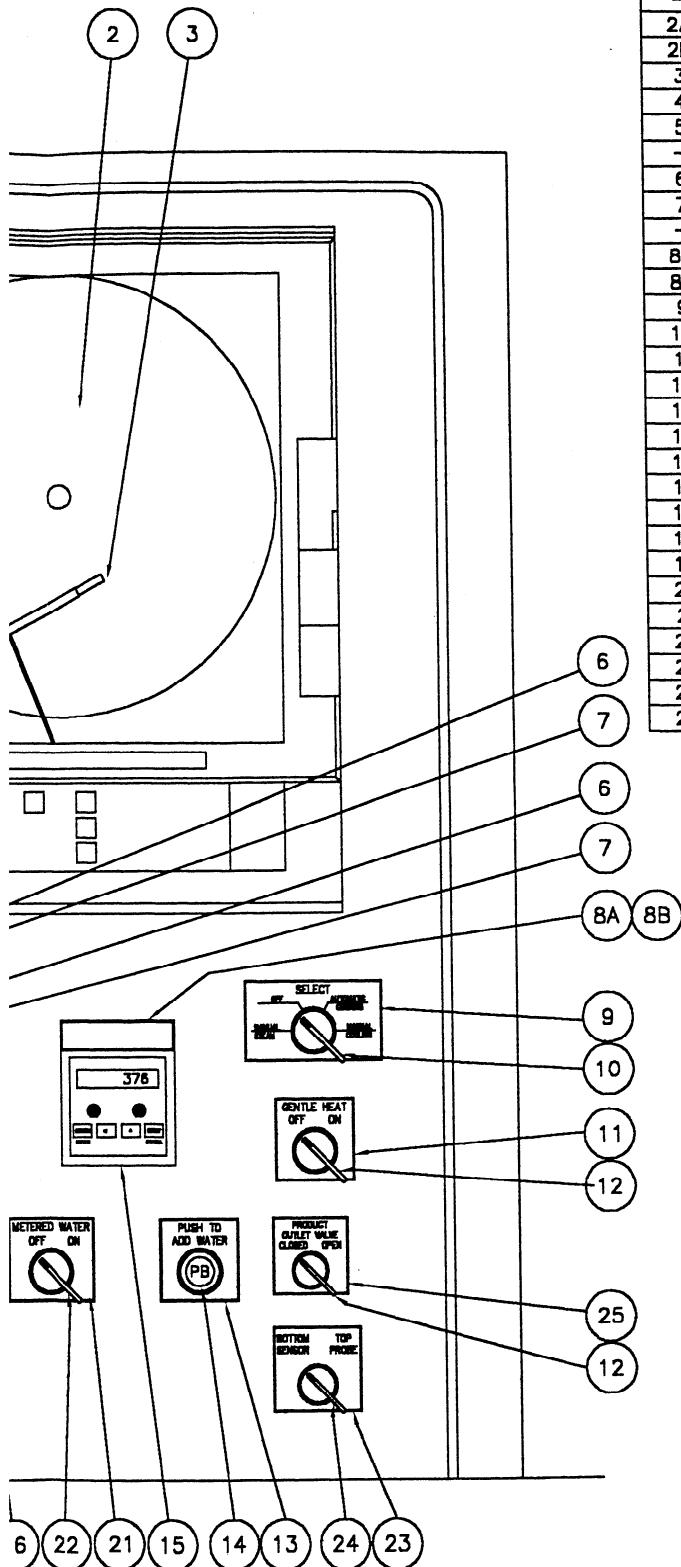
J.C.PARDO & SONS INC.  
 1250 REAMES RD.  
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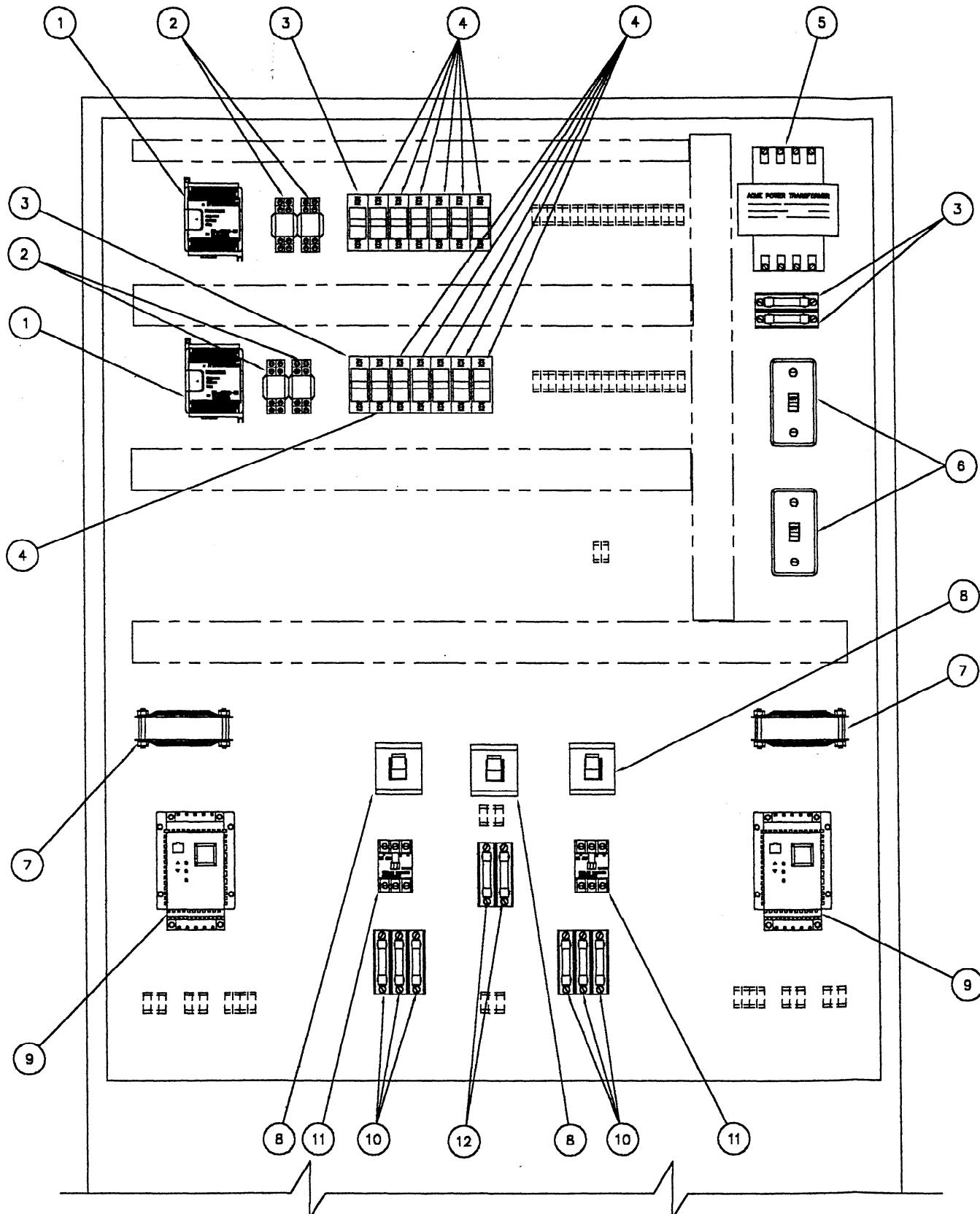
APPROVED BY:

# REPLACEMENT PARTS

| ITEM | PART NO.      | DESCRIPTION                    |
|------|---------------|--------------------------------|
| 1    | EL8CO-0000042 | PARTLOW 8000                   |
| -    | EL977-7700018 | CHART MOTOR FOR ITEM #1        |
| -    | EL977-7700019 | PEN MOTOR FOR ITEM #1          |
| -    | EL977-7700020 | TOUCH PAD FOR ITEM #1          |
| 2A   | MSJ00-0000005 | CHART PAPER IN °F              |
| 2B   | MSJ00-0000006 | CHART PAPER IN °C              |
| 3    | MSP00-0000002 | RED REPLACEMENT PEN            |
| 4    | NPYELLOW00110 | FUNCTION TAG                   |
| 5    | 2EP00-8800025 | RED LIGHTED TURN SWITCH        |
| -    | ELV00-6000001 | REPLACEMENT BULB FOR SWITCH #5 |
| 6    | NPYELLOW00103 | FUNCTION TAG                   |
| 7    | 2EP00-8800008 | GREEN LIGHTED PUSH BUTTON      |
| -    | ELV00-2400001 | REPLACEMENT BULB FOR SWITCH #7 |
| 8A   | NPYELLOW00116 | FUNCTION TAG FOR GALLONS       |
| 8B   | NPYELLOW00155 | FUNCTION TAG FOR LITERS        |
| 9    | NPYELLOW00111 | FUNCTION TAG                   |
| 10   | ELP00-8800001 | FOUR POSITION SWTCH            |
| 11   | NPYELLOW00107 | FUNCTION TAG                   |
| 12   | 2EP00-8800006 | TWO POSITON TURN SWITCH        |
| 13   | NPYELLOW00106 | FUNCTION TAG                   |
| 14   | 2EP00-8800007 | BLACK PUSH BUTTON              |
| 15   | EL8CO-0000045 | DIGITAL ATC WATER COUNTER      |
| 16   | NPYELLOW00104 | FUNCTION TAG                   |
| 17   | NPYELLOW00115 | FUNCTION TAG                   |
| 18   | ELP00-8800003 | SPEED POT                      |
| 19   | 2EP00-8800019 | RED MUSHROOM PUSH BUTTON       |
| 20   | NPRED00000019 | WARNING TAG                    |
| 21   | NPYELLOW00119 | FUNCTION TAG                   |
| 22   | 2EP00-8800009 | 2 POSITION TURN SWITCH         |
| 23   | NPYELLOW00194 | FUNCTION TAG                   |
| 24   | 2EP00-8800043 | 2 POSITION TURN SWITCH         |
| 25   | NPYELLOW00118 | FUNCTION TAG                   |



|  |               |   |  |         |                       |
|--|---------------|---|--|---------|-----------------------|
| CHECKED BY:  | DRAWN BY: JES | DUAL CONTROL PANEL<br>REPLACEMENT PARTS |  | SIZE: C | DRAWING NUMBER: 11533 |
| APPROVED BY:   | DATE: 2/1/00  |   |  | REV.    | SHEET 1 of 1          |
|  | SCALE: NONE   |   |  |         |                       |
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J.C.PARDO & SONS INC.

| REV.      | DESCRIPTION | BY | DATE |
|-----------|-------------|----|------|
| REVISIONS |             |    |      |

1250 REAMES RD.  
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BALTO MD. 21220  
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CHECKED BY

DRAWN BY JES

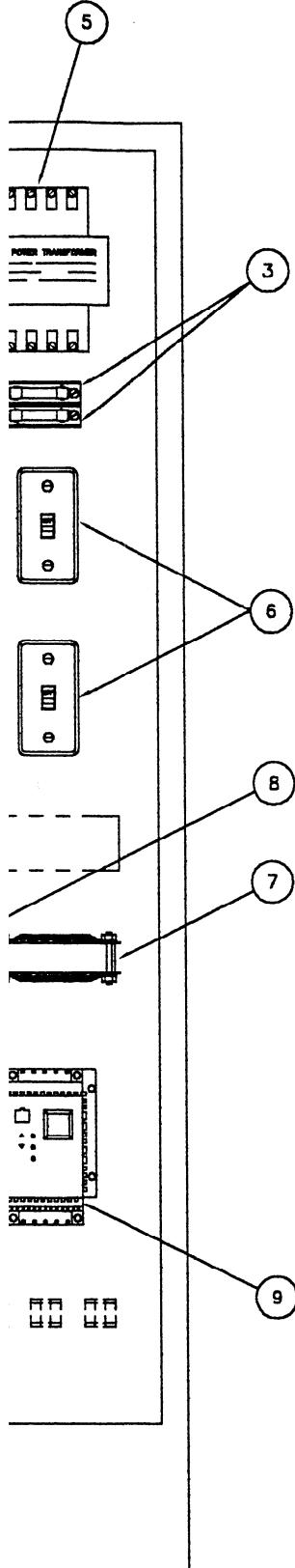
APPROVED BY

DATE: 8-24-0

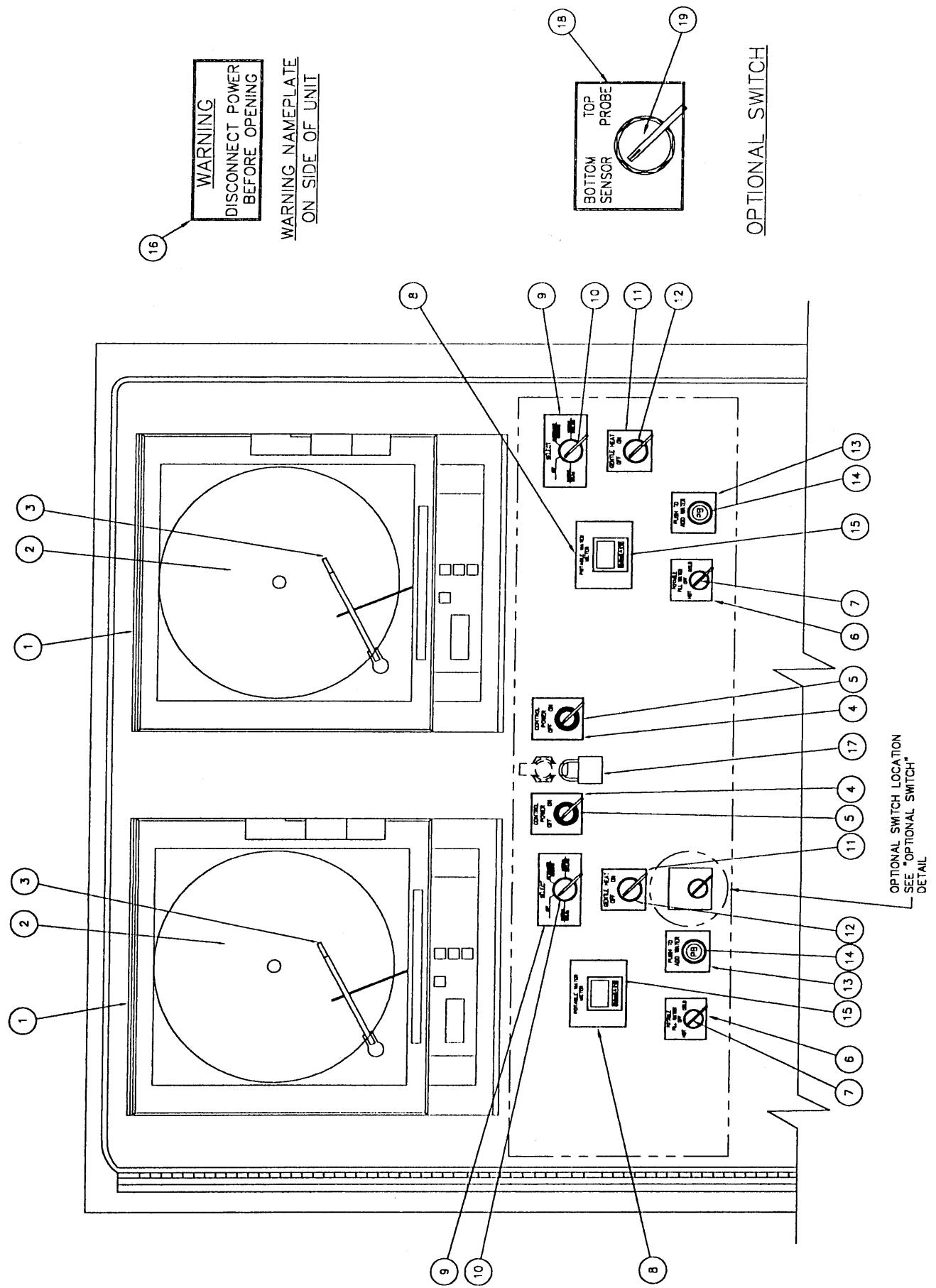
SCALE: NONE

# REPLACEMENT PARTS

| ITEM | PART NO.      | DESCRIPTION           |
|------|---------------|-----------------------|
| 1    | EL8CO-0000046 | MITSUBISHI CONTROLLER |
| 2    | ELPSW-0000002 | RELAY                 |
| -    | ELPSW-0000003 | RELAY MODULE BASE     |
| 3    | ELV02-5000001 | 5 AMP FUSE            |
| 4    | ELV02-5000002 | 1 AMP FUSE            |
| 5    | ELV10-0000001 | TRANSFORMER 1000VA    |
| 6    | ELPSW-0000007 | DUAL POLE SWITCH      |
| 7    | 2EP00-0000001 | FAN W/ SHROUDING      |
| 8    | ELPSW-0000001 | 3 POLE SWITCH         |
| 9    | ELH02-0000008 | 2 H.P. INVERTER 208V  |
| 10   | ELV06-0000004 | 15 AMP FUSE           |
| 11   | ELPSW-0000004 | MOTOR CONTACTOR       |
| 12   | ELV06-0000002 | 8 AMP FUSE            |



|             |               |  |         |                       |
|-------------|---------------|--|---------|-----------------------|
| CHECKED BY  | DRAWN BY JES  | DUAL CONTROL PANEL INTERIOR 2HP-208v<br>REPLACEMENT PARTS  | SIZE: C | DRAWING NUMBER: 11550 |
| APPROVED BY | DATE: 8-24-00 | This drawing and all information contained therein is the property of J.C.Pardo & Sons, Inc. Belts, MD. The drawing and all information is confidential and must not be made public or copied. It is loaned subject to return upon demand and is not to be used directly or indirectly in any way detrimental to J.C.Pardo & Sons. | REV.    | 1 of 1                |
|             | SCALE: NONE   |  |         |                       |

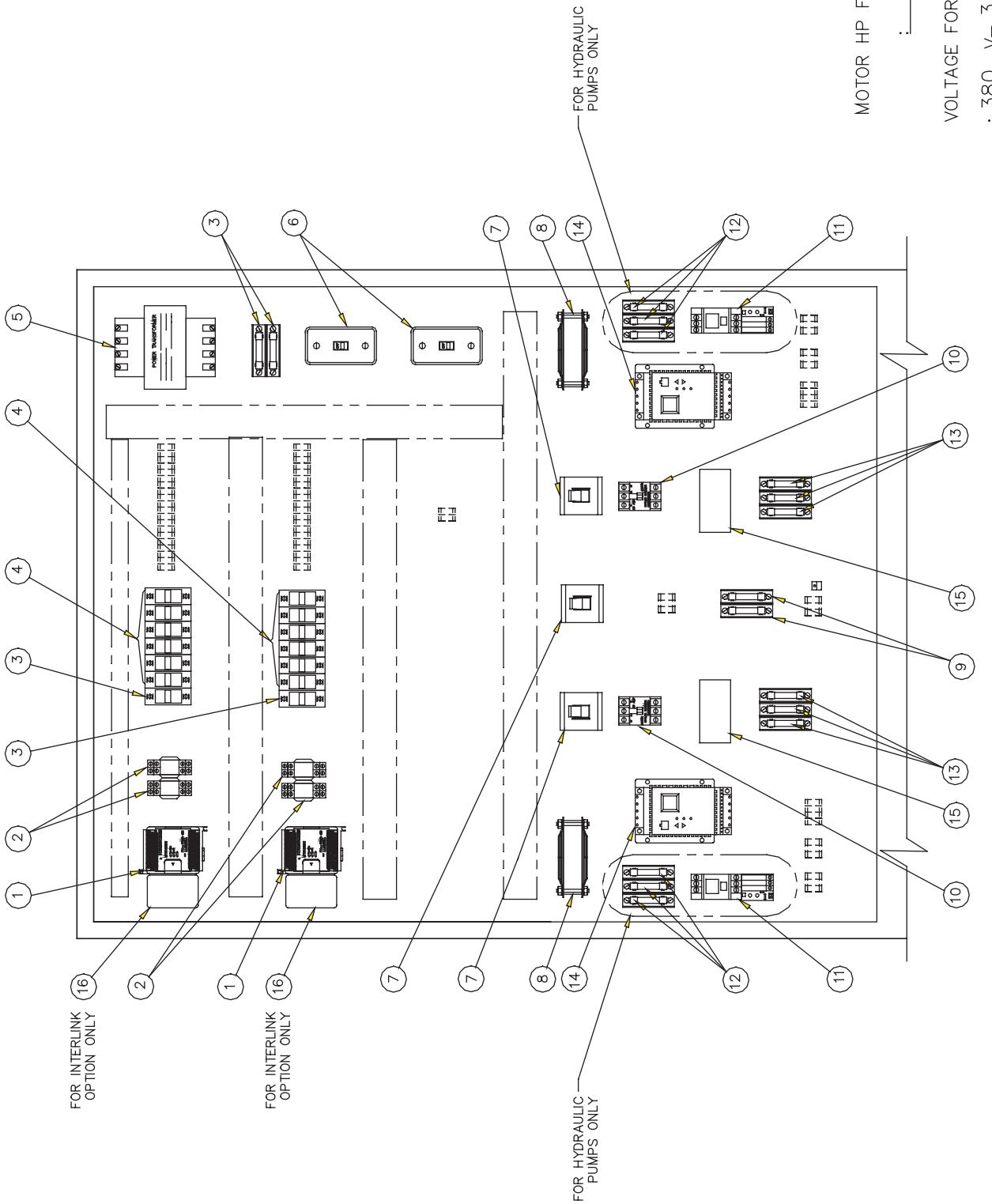


| REV. | DESCRIPTION  | BY | DATE    | REVISIONS | DRAWING NUMBER    |
|------|--|----|---------|-----------|-------------------|
|      | J.C. PARDO & SONS INC.<br>1250 REAMES RD. <br>BALTO MD. 21220<br>PHONE (410) 381-3800<br>FAX (410) 381-9842 |    | 3/27/02 | MADE NONE | C 11656<br>1 of 2 |

## REPLACEMENT PARTS

| ITEM | PART NO.       | DESCRIPTION                     |
|------|----------------|---------------------------------|
| 1    | EL8CO-00000042 | PARTLOW 8000                    |
| -    | EL977-77000019 | REPLACEMENT PEN MOTOR ITEM #1   |
| -    | EL977-77000018 | REPLACEMENT CHART MOTOR ITEM #1 |
| -    | EL977-77000020 | REPLACEMENT TOUCH PAD COVER     |
| -    | ELP00-00000037 | REPLACEMENT DOOR FOR ITEM #1    |
| -    | ELP00-00000036 | REPLACEMENT DOOR WINDOW ITEM #1 |
| 2    | MSU00-00000005 | 24 HOUR CHART PAPER 'F'         |
| 3    | MS200-00000002 | RED REPLACEMENT PEN             |
| 4    | NPYELLOW00110  | NAMEPLATE                       |
| 5    | 2EP00-88000025 | RED LIGHTED TURN SWITCH         |
| -    | ELV00-60000001 | REPLACEMENT BULB FOR ITEM #5    |
| 6    | NPYELLCW00109  | NAMEPLATE                       |
| 7    | 2EP00-88000022 | THREE POSITION SWITCH           |
| 8    | NPYELLCW00C257 | NAMEPLATE                       |
| 9    | NPYELLOW00111  | NAMEPLATE                       |
| 10   | ELP00-88000001 | FOUR POSITION SWITCH            |
| 11   | NPYELLOW00C07  | NAMEPLATE                       |
| 12   | 2EP00-88000006 | TWO POSITION SWITCH             |
| 13   | NPYELLOW00106  | NAMEPLATE                       |
| 14   | 2EP00-88000007 | BLACK PUSH BUTTON               |
| 15   | EL8CO-00000067 | DIGITAL REDLION WATER COUNTER   |
| -    | ELV02-50000019 | REPLACEMENT .315A FUSE ITEM #15 |
| 16   | NPREDO00000019 | NAMEPLATE WARNING               |
| 17   | HWLOCKSQ000001 | PADLOCK WITH KEYS               |
| 18   | NPYELLOW00194  | NAMEPLATE (OPTIONAL)            |
| 19   | 2EP00-88000043 | TWO POSITION SWITCH (OPTIONAL)  |

|   |  |                 |   |                                      |
|---|--|-----------------|---|--------------------------------------|
| J.C.PARDO & SONS INC.   |  | DRAFTED BY: JES | DRAWN BY: JES   | DUAL KETTLE FLOOR MTD. CONTROL PANEL |
| 1250 REAMES RD.  BALTO MD. 21220 |  | APPROVED BY:    | REPLACEMENT PARTS (MARACOPA ONLY)                         | C                                    |
| PHONE (410) 391-3860 FAX (410) 391-9042   |  | DATE: 3/27/02   | 11656   | REV. C                               |
| REVISIONS   |  | REASON: NONE    | REMARKS: <small>REPLACEMENT PARTS (MARACOPA ONLY)</small> | 2 of 2                               |



|                                 |             |                 |  |         |                        |
|---------------------------------|-------------|-----------------|--|---------|------------------------|
| J. C. PARDO & SONS INC.         |             | CHECKED BY: JES | INTERNAL DUAL CONTROL PANEL 208/230/380/2, 3 & 5HP | SIZE: C | DRAWING NUMBER: 11614  |
| 1250 REAMES RD. BALTO MD. 21220 |             | APPROVED BY:    |  | REV. A  | REVISIONS SHEET 1 of 2 |
| REV. A                          | ADDED #15   | JES 6/01        | DATE   | REV. A  | REVISIONS SHEET 1 of 2 |
| REV. A                          | DESCRIPTION | BY              | PHONE (410) 391-3600                               | REV. A  | REVISIONS SHEET 1 of 2 |
| REV. A                          | REVISIONS   |                 | FAX (410) 391-9042                                 | REV. A  | REVISIONS SHEET 1 of 2 |

| UNIVERSAL REPLACEMENT PARTS |               |                               |
|-----------------------------|---------------|-------------------------------|
| ITEM                        | PART NO.      | DESCRIPTION                   |
| 1                           | EL8CO-0000046 | PROGRAMMABLE CONTROLLER       |
| 2                           | ELPSW-0000002 | RELAY                         |
| -                           | ELPSW-0000003 | REPLACEMENT BASE FOR ITEM #2  |
| 3                           | ELV02-5000001 | 5 AMP FUSE                    |
| 4                           | ELV02-5000002 | 1 AMP FUSE                    |
| 5                           | ----          | TRANSFORMER BY SYSTEM VOLTAGE |
| -                           | ELV10-0000001 | TRANSFORMER - 208/380V SYSTEM |
| -                           | ELV10-0000002 | TRANSFORMER - 230/460V SYSTEM |
| 6                           | ELPSW-0000007 | LOW VOLTAGE DISCONNECT        |
| 7                           | ELPSW-0000001 | HIGH VOLTAGE DISCONNECT       |
| 8                           | 2EP00-0000001 | FAN WITH SHROUDS              |
| 9                           | ----          | FUSES BY SYSTEM VOLTAGE       |
| -                           | ELV06-0000002 | 8 AMP FUSE - 208V SYSTEM      |
| -                           | ELV06-0000042 | 7 AMP FUSE - 230V SYSTEM      |
| -                           | ELV06-0000019 | 5 AMP FUSE - 380V SYSTEM      |
| -                           | ELV06-0000008 | 4 AMP FUSE - 460V SYSTEM      |
| 10                          | ELPSW-0000004 | MOTOR CONTACTOR               |

| OPTIONAL HYDRAULIC PUMP STARTER PARTS |               |                                  |
|---------------------------------------|---------------|----------------------------------|
| ITEM                                  | PART NO.      | DESCRIPTION                      |
| 11                                    | ELPSW-0000005 | HYDRAULIC MOTOR STARTER          |
| -                                     | ELV00-0000013 | HEATER PACK FOR ITEM #9 208/230V |
| -                                     | ELV00-0000023 | HEATER PACK FOR ITEM #9 380/460V |
| 12                                    | ELV06-0000015 | 3 AMP FUSE                       |

| 2 HP MOTOR REPLACEMENT PARTS |               |                               |
|------------------------------|---------------|-------------------------------|
| ITEM                         | PART NO.      | DESCRIPTION                   |
| 13                           | ----          | FUSES BY VOLTAGE              |
| -                            | ELV06-0000007 | 20 AMP FUSE 208/230V          |
| -                            | ELV06-0000010 | 10 AMP FUSE 380/460V          |
| 14                           | ----          | INVERTER BY VOLTAGE           |
| -                            | ELH02-0000008 | 2 HP INVERTER, 208/230V       |
| -                            | ELH02-0000009 | 2 HP INVERTER, 380/460V       |
| 15                           | ----          | LINE REACTORS BY VOLTAGE & HP |
| -                            | ELV00-0000024 | LINE REACTOR 2HP 208/230/460V |

MOTOR HP FOR THIS JOB IS : 3 HP.

VOLTAGE FOR THIS JOB IS : 380 V - 3 PH - 50Hz.

| 3 HP MOTOR REPLACEMENT PARTS |               |                               |
|------------------------------|---------------|-------------------------------|
| ITEM                         | PART NO.      | DESCRIPTION                   |
| 13                           | ----          | FUSES BY VOLTAGE              |
| -                            | ELV06-0000007 | 20 AMP FUSE 208/230V          |
| -                            | ELV06-0000010 | 10 AMP FUSE 380/460V          |
| 14                           | ----          | INVERTER BY VOLTAGE           |
| -                            | ELH03-0000011 | 3 HP INVERTER, 208/230V       |
| -                            | ELV00-0000024 | LINE REACTORS BY VOLTAGE & HP |

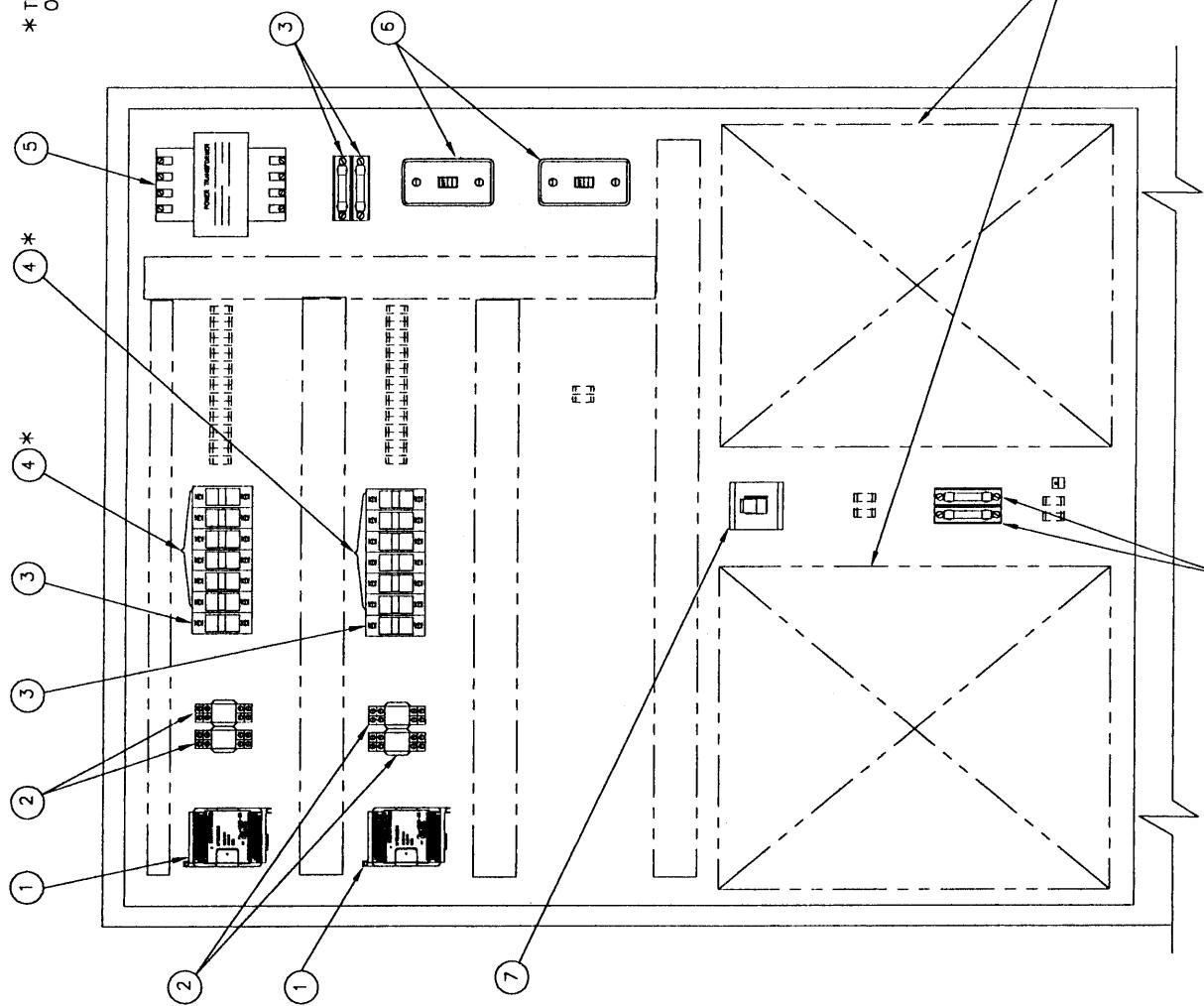
| OPTIONAL INTERLINK REPLACEMENT PARTS |               |                                      |
|--------------------------------------|---------------|--------------------------------------|
| ITEM                                 | PART NO.      | DESCRIPTION                          |
| 16                                   | EL8CO-0000057 | COMMUNICATIONS MODULE FOR CONTROLLER |

| B    | ADDED IA SPECS | JES 3/02 | J.C. PARDO & SONS INC. | CHEKED BY:   | DRAWN BY: JES | INTERNAL DUAL CONTROL PANEL 208/380/460V | 5HP | SIZE: | DRAWING NUMBER: |
|------|----------------|----------|------------------------|--------------|---------------|--|-----|-------|-----------------|
| A    | ADDED #15      | JES 6/01 | BALTO MD. 21220        | APPROVED BY: | DATE: 4-9-01  | C  | C   | C     | C 11614         |
| REV. | DESCRIPTION    | BY DATE  | PHONE (410) 391-3600   | SCALE: NONE  | REV. SHEET    | B  | B   | B     | B 2 of 2        |
|      | REVISIONS      |          | FAX (410) 391-9042     |              |               |  |     |       |                 |

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FOR MOTOR HOOKUPS ON THE  
RIGHT SIDE MIRROR THIS LAYOUT

\* THE PASTA KETTLE HAS  
ONLY FIVE 1 AMP FUSES



J.C. PARDO & SONS INC.  
1250 REAMES RD.   
BALTO MD. 21220  
PHONE (410) 381-9042

REVISIONS

INTERNAL DUAL CONTROL PANEL 2, 3 & 5HP  
208/230/380/460V HAK or TILT W/PASTA

DATE 10/23/01  
APPROVED BY  
SCALE NONE

DRAWING NUMBER  
11632

REVISION  
1 of 2

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## UNIVERSAL REPLACEMENT PARTS

| ITEM | PART NO.      | DESCRIPTION                   |
|------|---------------|-------------------------------|
| 1    | EL8CO-0000046 | PROGRAMMABLE CONTROLLER       |
| 2    | ELPSW-0000002 | RELAY                         |
| -    | ELPSW-0000003 | REPLACEMENT BASE FOR ITEM #2  |
| 3    | ELV02-5000001 | 5 AMP FUSE                    |
| 4    | ELV02-5000002 | 1 AMP FUSE                    |
| 5    | --            | TRANSFORMER BY SYSTEM VOLTAGE |
| -    | ELV10-0000001 | TRANSFORMER - 208/380V SYSTEM |
| -    | ELV10-0000002 | TRANSFORMER - 230/460V SYSTEM |
| 6    | ELPSW-0000007 | LOW VOLTAGE DISCONNECT        |
| 7    | ELPSW-0000001 | HIGH VOLTAGE DISCONNECT       |
| 8    | 2EP00-0000001 | FAN WITH SHROUDS              |
| 9    | --            | FUSES BY SYSTEM VOLTAGE       |
| -    | ELV06-0000002 | 8 AMP FUSE - 208V SYSTEM      |
| -    | ELV06-0000042 | 7 AMP FUSE - 230V SYSTEM      |
| -    | ELV06-0000019 | 5 AMP FUSE - 380V SYSTEM      |
| -    | ELV06-0000008 | 4 AMP FUSE - 460V SYSTEM      |
| 10   | ELPSW-0000004 | MOTOR CONTACTOR               |

## OPTIONAL TILTING KETTLE PARTS

| ITEM | PART NO.      | DESCRIPTION                      |
|------|---------------|----------------------------------|
| 11   | ELPSW-0000005 | HYDRAULIC MOTOR STARTER          |
| -    | ELV00-0000013 | HEATER PACK FOR ITEM #9 208/230V |
| -    | ELV00-0000023 | HEATER PACK FOR ITEM #9 380/400V |
| 12   | ELV06-0000015 | 3 AMP FUSE                       |

## 60 GAL. REPLACEMENT PARTS

| ITEM | PART NO.       | DESCRIPTION             |
|------|----------------|-------------------------|
| 13   | ---            | FUSES BY VOLTAGE        |
| -    | ELV06-00000007 | 20 AMP FUSE 208/230V    |
| -    | ELV06-00000010 | 10 AMP FUSE 380/460V    |
| 14   | ---            | INVERTER BY VOLTAGE     |
| -    | ELH02-00000008 | 2 HP INVERTER, 208/230V |
| -    | ELH02-00000009 | 2 HP INVERTER, 380/460V |

## 100 GAL. REPLACEMENT PARTS

| ITEM | PART NO.       | DESCRIPTION             |
|------|----------------|-------------------------|
| 13   | ---            | FUSES BY VOLTAGE        |
| -    | ELV06-00000007 | 20 AMP FUSE 208/230V    |
| -    | ELV06-00000010 | 10 AMP FUSE 380/460V    |
| 14   | ---            | INVERTER BY VOLTAGE     |
| -    | ELH03-00000010 | 3 HP INVERTER, 208/230V |
| -    | ELH03-00000011 | 3 HP INVERTER, 380/460V |

## 150/200 GAL. REPLACEMENT PARTS

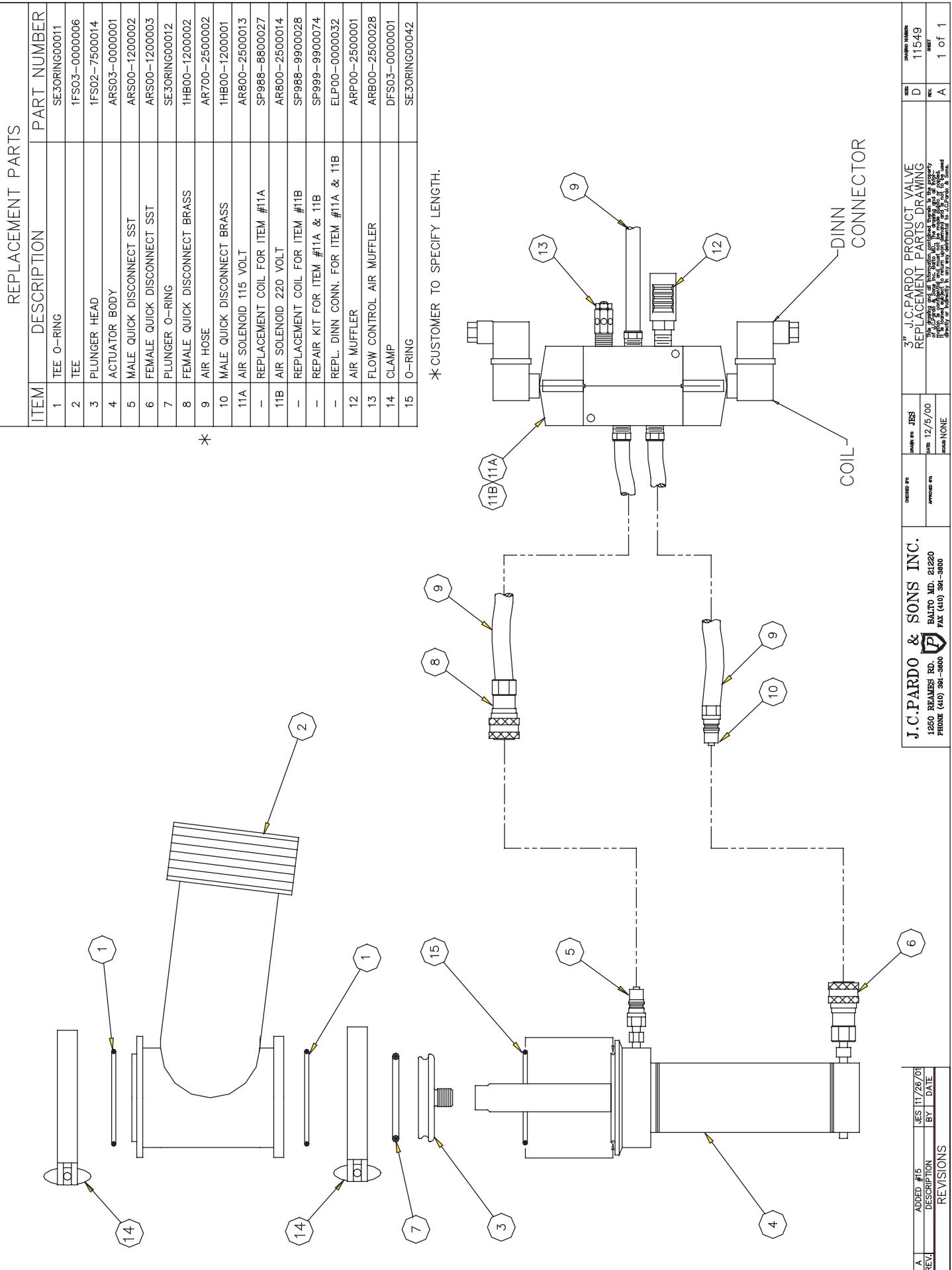
| ITEM | PART NO.      | DESCRIPTION             |
|------|---------------|-------------------------|
| 1.3  | ---           | FUSES BY VOLTAGE        |
| -    | ELV06-0000018 | 30 AMP FUSE 208/230V    |
| -    | ELV06-0000004 | 15 AMP FUSE 380/460V    |
| 14   | ---           | INVERTER BY VOLTAGE     |
| -    | ELH05-0000013 | 5 HP INVERTER, 208/230V |
| -    | ELH05-0000014 | 5 HP INVERTER, 380/460V |

## 60/100 GAL. REPLACEMENT PARTS

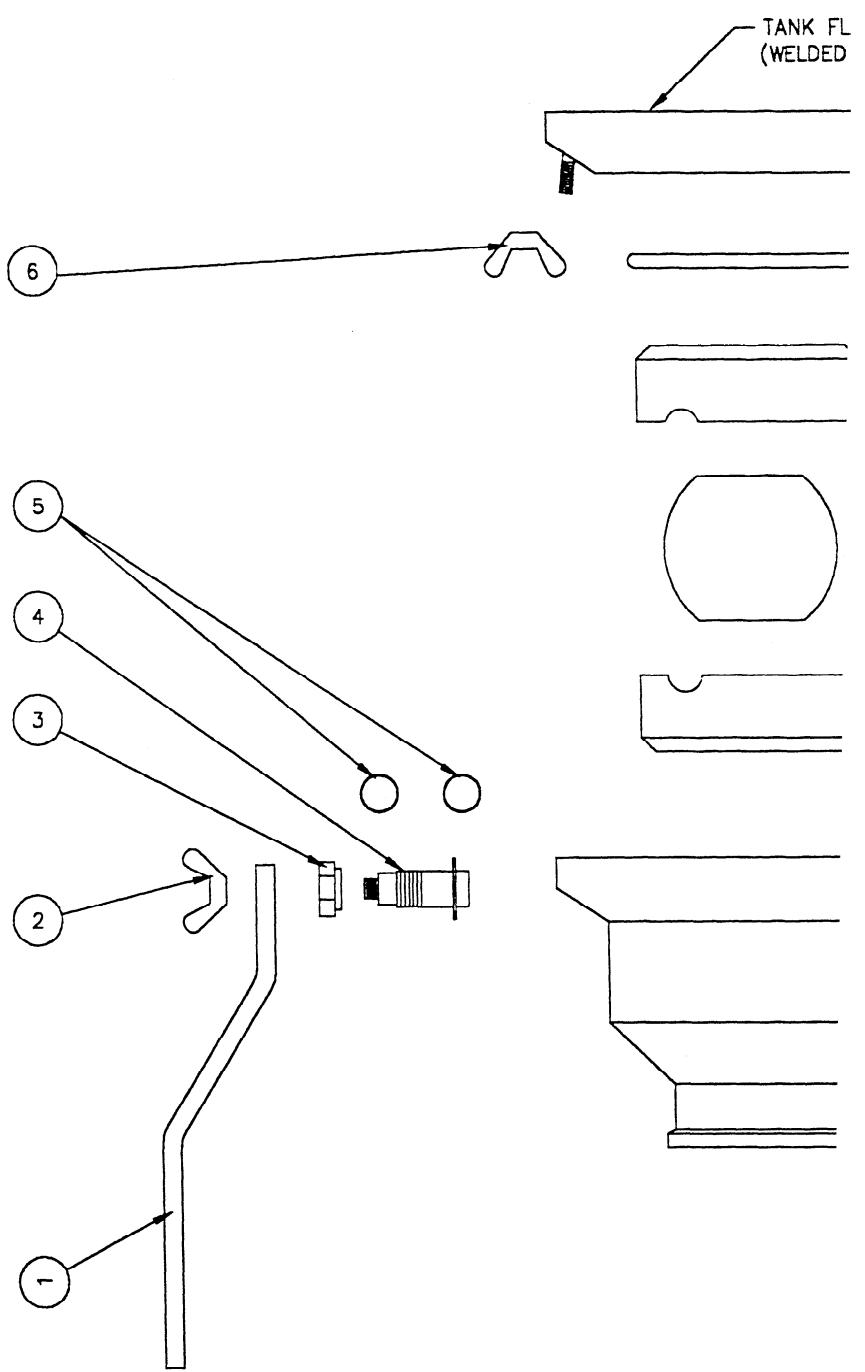
| ITEM | PART NO.      | DESCRIPTION                     |
|------|---------------|---------------------------------|
| 15   | ---           | LINE REACTORS BY VOLTAGE & HP   |
| -    | ELV00-0000C24 | LINE REACTOR 1-3HP 208/230/460V |

|                                     |  |              |              |  |                |  |                           |
|-------------------------------------|--|--------------|--------------|--|----------------|--|---------------------------|
| J.C.PARDO & SONS INC.               |  | SEARCHED BY: | INDEXED BY:  | DRAWN BY: JES  | DATE: 10/23/01 | INTERNAL DUAL CONTROL PANEL 2, 3 & 5HP<br>208/230/380/460V HAK OR TILT W/PASTA | RE. 11632<br>SHEET 1 OF 1 |
| 1250 REAMES RD.<br>BALTO. MD. 21220 |  | APPROVED BY: | APPROVED BY: | The drawing and all information contained therein is the property<br>of J.C. Pardo & Sons Inc. |                |  |                           |

|           |             |     |      |
|-----------|-------------|-----|------|
| A         | ADDED #15   | JES | 6/01 |
| REV.      | DESCRIPTION | BY  | DATE |
| REVISIONS |             |     |      |

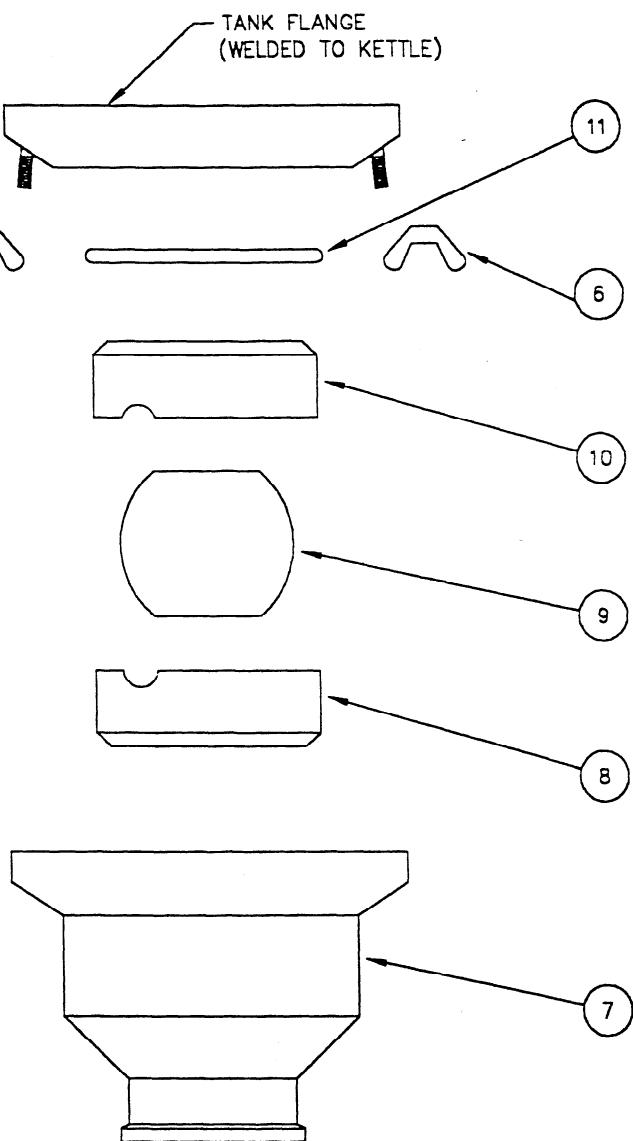


| J.C. PARD0 & SONS INC. |                    | order # | date in test | order #   | date in test | order #   | date in test |
|------------------------|--------------------|---------|--------------|-----------|--------------|-----------|--------------|
| 1250 BRAMES RD         | BALTO, MD. 21220   | 11549   | 12/5/00      | RECEIVED  | 12/5/00      | RECEIVED  | 12/5/00      |
| PHONE (410) 391-3800   | FAX (410) 391-3800 | REV. A  | 1 of 1       | REVISIONS |              | REVISIONS |              |



# REPLACEMENT PARTS

| ITEM | PART NO.      | DESCRIPTION     |
|------|---------------|-----------------|
| 1    | SPS03-000005  | HANDLE          |
| 2    | HWS00-500005  | WING NUT 1/2-13 |
| 3    | HWS00-000002  | PACKING NUT     |
| 4    | SPS00-000003  | STEM            |
| 5    | SPF00-000001  | STEM SEAL       |
| 6    | HWS00-380005  | WING NUT 3/8-16 |
| 7    | SPS03-000004  | VALVE BODY      |
| 8    | SPF03-000005  | DISCHARGE SEAL  |
| 9    | SPS03-000006  | BALL            |
| 10   | SPF03-000004  | INTAKE SEAL     |
| 11   | SE30RING00008 | O-RING          |

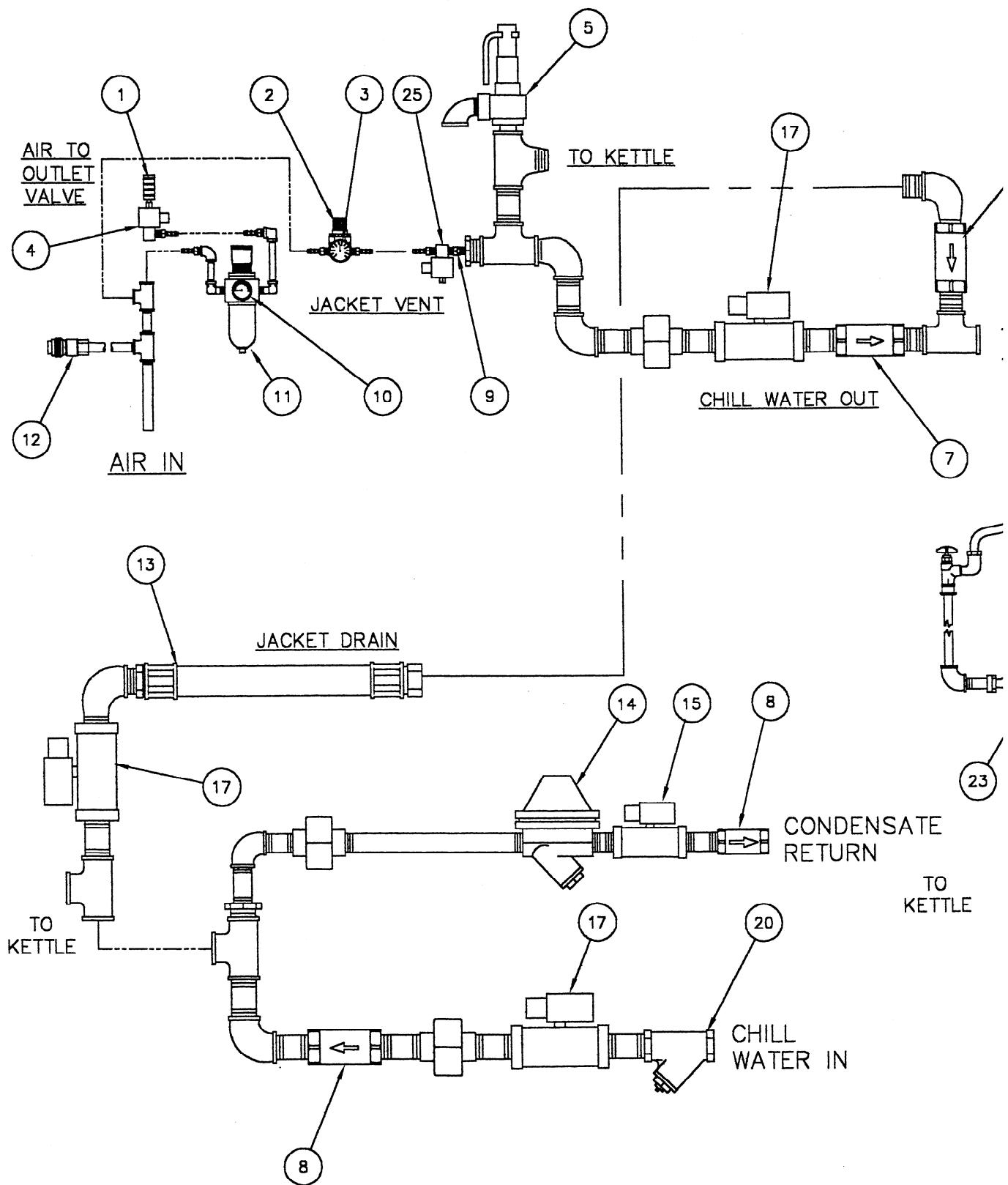


JOB #

J.C.PARDO & SONS INC.

1250 REAMES RD.  BALTO. MD. 21220

|   |              |                       |
|---|--------------|-----------------------|
| SCALE: NONE                                       | APPROVED BY: | DRAWN BY:             |
| DATE: 7/21/95                                     |              | LAURIE YORI           |
| 3" LEE FLUSH TANK BALL VALVE<br>REPLACEMENT PARTS |              |                       |
| SHEET 1 of 1                                      |              | SIZE: C               |
|   |              | DRAWING NUMBER: 11115 |
|   |              | REV.                  |



| REV.      | DESCRIPTION | BY | DATE |
|-----------|-------------|----|------|
| REVISIONS |             |    |      |

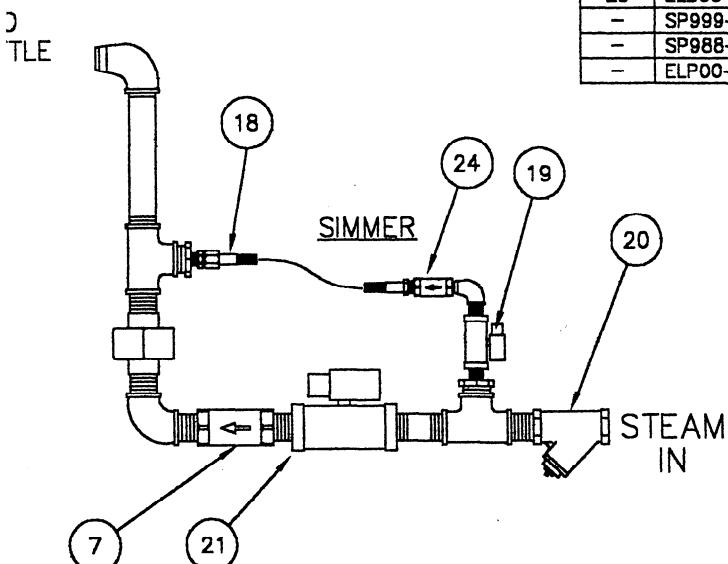
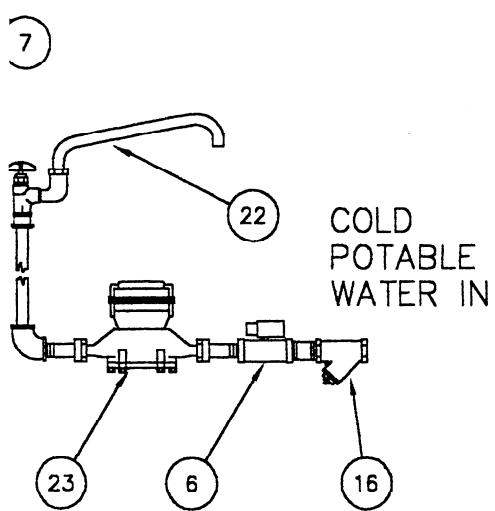
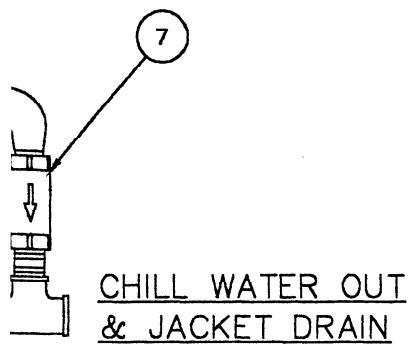
J.C.PARDO & SONS INC.  
 1250 REAMES RD.   
 BALTO MD. 21220  
 PHONE (410) 381-3800  
 FAX (410) 381-9042

CHECKED BY:

APPROVED BY:

# REPLACEMENT PARTS LIST

| ITEM | PART NO.       | DESCRIPTION                          |
|------|----------------|--------------------------------------|
| 1    | ARP00-2500001  | AIR MUFFLER                          |
| 2    | AR800-3700002  | MINI AIR REGULATOR                   |
| 3    | AR800-2500002  | REPLACEMENT GAUGE                    |
| 4    | ELB00-2500011  | OUTLET VALVE SOLENOID                |
| -    | SP999-9900010  | REPLACEMENT KIT FOR ITEM #4          |
| -    | SP988-8800004  | REPLACEMENT COIL FOR ITEM #4         |
| -    | ELP00-0000000  | REPLACEMENT DNN CONN. FOR ITEM #4    |
| 5    | VAB00-7500005  | 50 PSI SAFETY VALVE                  |
| 6    | ELB00-5000015  | POTABLE WATER IN SOLENOID            |
| -    | SP999-9900002  | REPLACEMENT KIT FOR ITEM #6          |
| -    | SP988-8800002  | REPLACEMENT COIL FOR ITEM #6         |
| -    | ELP00-0000000  | REPLACEMENT DNN CONN. FOR ITEM #6    |
| 7    | MSB00-7500004  | BALL CONE CHECK VALVE                |
| 8    | MSB00-5000005  | BALL CONE CHECK VALVE                |
| 9    | VAB00-2500001  | NO LEAK CHECK VALVE                  |
| 10   | AR800-2500002  | REPLACEMENT GAUGE                    |
| 11   | AR800-2500001  | AIR REGULATOR                        |
| 12   | ARB00-5000001  | AIR QUICK DISCONNECT                 |
| 13   | PBD00-7500001  | JACKET DRAIN HOSE                    |
| 14   | MSC00-5000002  | STEAM TRAP                           |
| -    | SP999-9900017  | REPAIR KIT FOR ITEM #14              |
| 15   | ELB00-5000016  | CONDENSATE SOLENOID                  |
| -    | SP999-9900006  | REPLACEMENT KIT FOR ITEM #15         |
| -    | SP988-8800003  | REPLACEMENT COIL FOR ITEM #15        |
| -    | ELP00-0000000  | REPLACEMENT DNN CONN. FOR ITEM #15   |
| 16   | MSB00-5000001  | 50 MESH STRAINER                     |
| -    | MSB00-5000006  | REPLACEMENT SCREEN FOR ITEM #16      |
| 17   | ELB00-7500015  | JACKET DRAIN SOLENOID                |
| -    | SP999-9900004  | REPLACEMENT KIT FOR ITEM #17         |
| -    | SP988-8800002  | REPLACEMENT COIL FOR ITEM #17        |
| -    | ELP00-0000000  | REPLACEMENT DNN CONN. FOR ITEM #17   |
| 18   | PBS00-3800001  | FLEXABLE SIMMER LINE                 |
| 19   | ELB00-2500012  | SIMMER SOLENOID                      |
| -    | SP999-9900009  | REPLACEMENT KIT FOR ITEM #19         |
| -    | SP988-8800003  | REPLACEMENT COIL FOR ITEM #19        |
| -    | ELP00-0000000  | REPLACEMENT DNN CONN. FOR ITEM #19   |
| 20   | MSB00-7500001  | 50 MESH STRAINER                     |
| -    | MSB00-7500006  | REPLACEMENT SCREEN FOR ITEM #20      |
| 21   | ELB00-7500016  | STEAM IN SOLENOID                    |
| -    | SP999-9900007  | REPLACEMENT KIT FOR SOLENOID #21     |
| -    | SP988-8800003  | REPLACEMENT COIL FOR SOLENOID #21    |
| -    | ELP00-0000000  | REPLACEMENT DNN CONN. FOR ITEM #21   |
| 22   | PBB00-5000024  | FILL FAUCET                          |
| 23   | ELB00-5000002  | WATER METER UNIT                     |
| -    | EL977-7700001  | REPLACEMENT RESISTOR FOR ITEM #23    |
| -    | EL977-7700011  | REPLACEMENT REED SWITCH FOR ITEM #23 |
| 24   | MSB00-3800001  | BALL CONE CHECK VALVE                |
| 25   | ELB00-25000013 | JACKET VENT SOLENOID                 |
| -    | SP999-9900064  | REPLACEMENT KIT FOR ITEM #25         |
| -    | SP988-8800002  | REPLACEMENT COIL FOR ITEM #25        |
| -    | ELP00-0000000  | REPLACEMENT DNN CONN. FOR ITEM #25   |

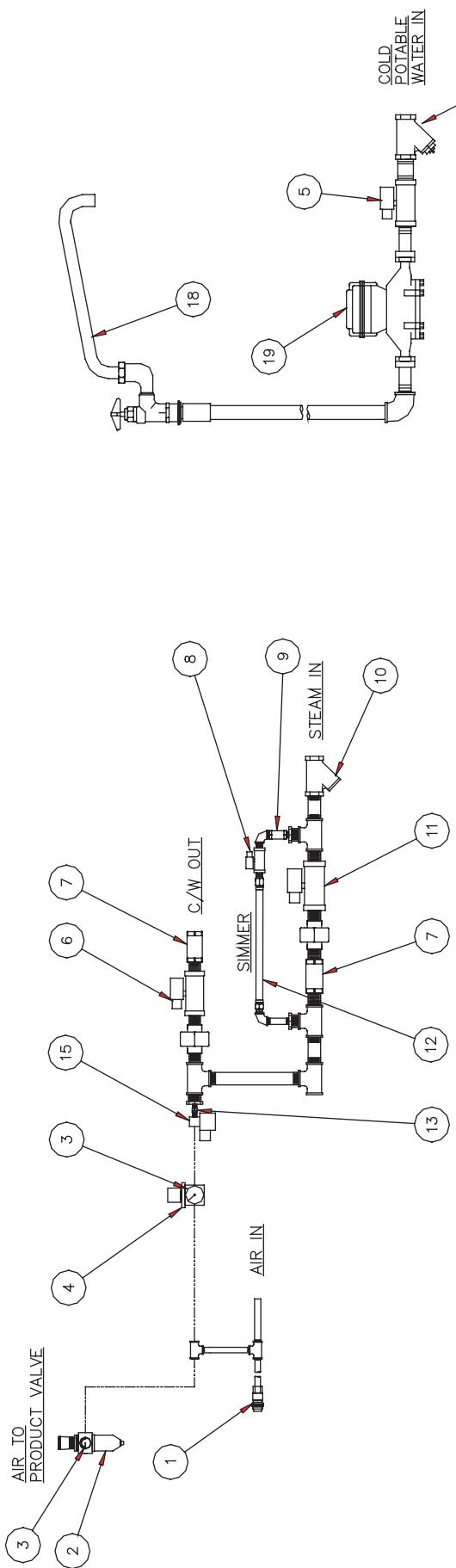


BY: DRAWN BY: JAY S.  
DATE: 2/4/00  
SCALE: NONE

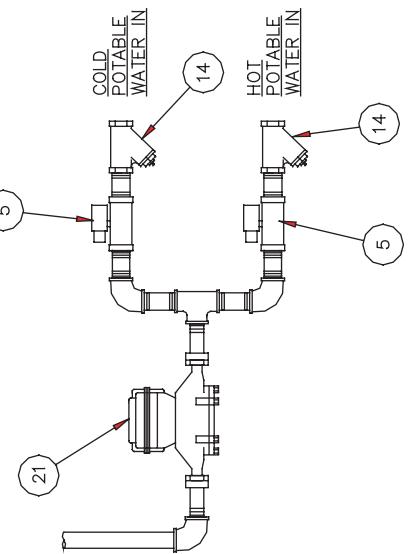
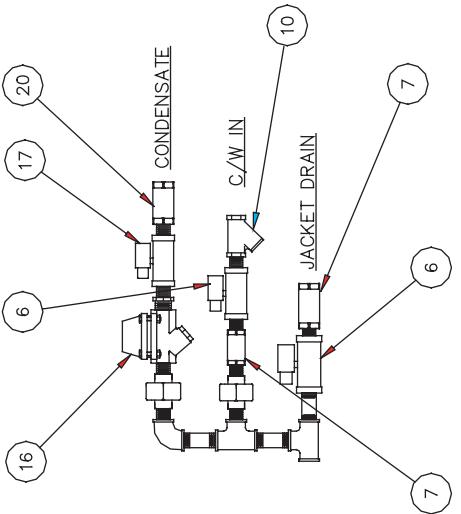
60-HAK PLUMBING W/DNN CONN.  
REPLACEMENT PARTS

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SIZE: C DRAWING NUMBER: 11524  
REV. 1 of 1 SHEET



ALL COMPONENTS AND FEATURES SHOWN DO NOT APPEAR ON ALL KETTLES  
IGNORE ALL COMPONENTS AND FEATURES NOT APPEARING ON YOUR KETTLE



OPTIONAL HOT/COLD POTABLE WATER

| ITEM | DESCRIPTION  | REV. | DATE  | REVISIONS |
|------|--|------|-------|-----------|
|      | HANK-DL-150-200-T PLUMBING W/DINN CONNECTORS REPLACEMENT PARTS | D    | 11628 |           |

| ITEM | DESCRIPTION           | REV. | DATE    | REVISIONS |
|------|-----------------------|------|---------|-----------|
|      | J.C.PARDO & SONS INC. | JES  | 6-29-01 |           |

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PHONE (410) 391-3900

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1 of 2

ALL COMPONENTS AND FEATURES SHOWN DO NOT APPEAR ON ALL KETTLES  
IGNORE ALL COMPONENTS AND FEATURES NOT APPEARING ON YOUR KETTLE

## REPLACEMENT PARTS LIST

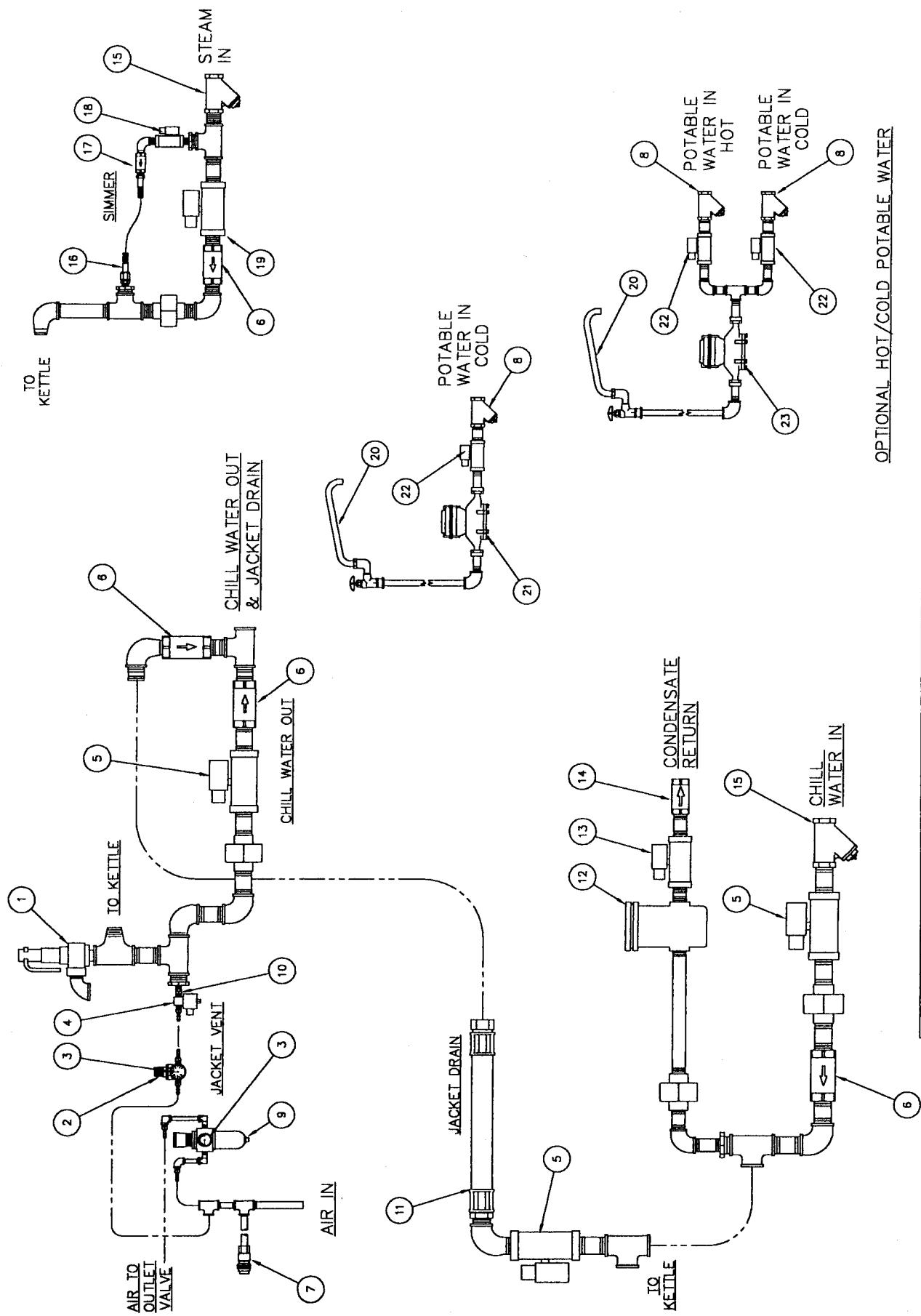
| REPLACEMENT PARTS LIST |               |                                      |
|------------------------|---------------|--------------------------------------|
| ITEM                   | PART NO.      | DESCRIPTION                          |
| 1                      | ARB00-5000001 | QUICK DISCONNECT                     |
| 2                      | AR800-2500001 | AIR FILTER REGULATOR                 |
| 3                      | AR800-2500004 | REPLACEMENT GAUGE                    |
| 4                      | AR800-2500003 | MINI AIR REGULATOR                   |
| 5                      | ELB00-7500015 | SOLENOID, POTABLE WATER IN           |
| —                      | SP999-9900004 | REPLACEMENT KIT FOR ITEM #5          |
| —                      | SP988-8800002 | REPLACEMENT COIL FOR ITEM #5         |
| —                      | ELP00-0000000 | REPLACEMENT DINN CONN. FOR ITEM #5   |
| 6                      | ELB01-2500011 | SOL. CHILL WATER IN/OUT & JACKET DR. |
| —                      | SP999-9900005 | REPLACEMENT KIT FOR ITEM #6          |
| —                      | SP988-8800002 | REPLACEMENT COIL FOR ITEM #6         |
| —                      | ELP00-0000000 | REPLACEMENT DINN CONN. FOR ITEM #6   |
| 7                      | MSB01-2500004 | BALL CONE CHECK VALVE                |
| 8                      | ELB00-5000016 | SOLENOID, SUMMER                     |
| —                      | SP999-9900006 | REPLACEMENT KIT FOR ITEM #8          |
| —                      | SP988-8800003 | REPLACEMENT COIL FOR ITEM #8         |
| —                      | ELP00-0000000 | REPLACEMENT DINN CONN. FOR ITEM #8   |
| 9                      | MSB00-5000005 | BALL CONE CHECK VALVE                |
| 10                     | MSB01-2500001 | STRAINER                             |
| —                      | MSB01-2500005 | REPLACEMENT SCREEN FOR ITEM #10      |

REF| AGREEMENT PARTS | 13

| REPLACEMENT PARTS LIST |                |                                      |
|------------------------|----------------|--------------------------------------|
| ITEM                   | PART NO.       | DESCRIPTION                          |
| 11                     | ELB01-2500012  | SOLENOID, STEAM IN                   |
| -                      | SP999-9900008  | REPLACEMENT KIT FOR ITEM #11         |
| -                      | SP988-8800003  | REPLACEMENT COIL FOR ITEM #11        |
| -                      | ELP00-0000000  | REPLACEMENT DINN CONN. FOR ITEM #11  |
| 12                     | PBS00-5000026  | FLEXIBLE SST BRAIDED HOSE            |
| 13                     | VAB00-2500001  | NO LEAK CHECK VALVE                  |
| 14                     | MSB00-7500001  | STRAINER                             |
| -                      | MSB00-7500006  | REPLACEMENT SCREEN FOR ITEM #14      |
| 15                     | ELB00-25000013 | SOLENOID, JACKET VENT                |
| -                      | SP999-9900064  | REPLACEMENT KIT FOR ITEM #15         |
| -                      | SP988-8800002  | REPLACEMENT COIL FOR ITEM #15        |
| -                      | ELP00-0000000  | REPLACEMENT DINN CONN. FOR ITEM #15  |
| 16                     | MSC00-7500002  | STEAM TRAP                           |
| -                      | SP999-9900017  | REPLACEMENT KIT FOR ITEM #16         |
| 17                     | ELB01-0000014  | SOLENOID, CONDENSATE                 |
| -                      | SP999-9900008  | REPLACEMENT KIT FOR ITEM #17         |
| -                      | SP988-8800003  | REPLACEMENT COIL FOR ITEM #17        |
| -                      | ELP00-0000000  | REPLACEMENT DINN CONN. FOR ITEM #17  |
| 18                     | PBB00-7500018  | FILL FAUCET                          |
| -                      | PBB00-7500021  | REPLACEMENT SWING SPOUT FOR ITEM #18 |
| 19                     | ELB00-7500017  | DIGITAL COLD WATER METER             |
| 20                     | MSB01-0000003  | BALL CONE CHECK VALVE                |
| 21                     | ELB00-7500018  | DIGITAL HOT WATER METER (OPTIONAL)   |

|      |   |     |      |
|------|---|-----|------|
| A    | #12 WAS PB#00-5000001<br>ADD SWING SPOUT TO #18 | JES | 7/03 |
| REV. | DESCRIPTION                                     | BY  | DATE |

|   |  |             |         |   |      |   |                |       |
|---|--|-------------|---------|---|------|---|----------------|-------|
| J.C.PARDO & SONS INC.   |  | checked by  | JBS     | HAWK-DL-150-200-T PLUMBING W/DINN CONNECTORS REPAIR PARTS | size | D | DRAWING NUMBER | 11628 |
| 1250 REAMES RD.  BALTO MD. 21220 |  | APPROVED BY | 6-29-01 | REC.  | REC. |   | SHEET          |       |
| PHONE (410) 381-3800 FAX (410) 381-3860   |  | SCALE       | NONE    |   |      |   |                |       |



OPTIONAL HOT/COLD POTABLE WATER

| J. C. PARDO & SONS INC.                 |             | checked in  | date in JES | checked in | date in JES | checked in | date in JES |
|---|-------------|-------------|-------------|------------|-------------|------------|-------------|
| 1250 REAMERS RD. BALTO MD. 21220        |             | APPROVED IN | DATE 4/1/02 | CONNECTORS | W/DINN      | CONNECTORS | W/DINN      |
| PHONE (410) 381-3600 FAX (410) 381-9042 |             | REVISIONS   | REVISIONS   | REVISIONS  | REVISIONS   | REVISIONS  | REVISIONS   |
| REV.                                    | DESCRIPTION | BY          | DATE        | C          | C           | C          | C           |
|   |             |             |             | 11658      | 11658       | 11658      | 11658       |
|   |             |             |             | 1          | 1           | 1          | 1           |
|   |             |             |             | of         | of          | of         | of          |

| REPLACEMENT PARTS LIST |               |  |
|------------------------|---------------|--|
| ITEM                   | PART NO.      | DESCRIPTION                            |
| 1                      | VA801-2500001 | 100 PSI SAFETY VALVE                   |
| 2                      | AR800-3700002 | MINI AIR REGULATOR                     |
| 3                      | AR800-2500004 | REPLACEMENT GAUGE                      |
| 4                      | ELB00-2500013 | JACKET VENT SOLENOID                   |
| -                      | ELP00-0000000 | REPLACEMENT DINN CONN. FOR ITEM #4     |
| -                      | SP999-9900064 | REPLACEMENT KIT FOR ITEM #4            |
| -                      | SP998-8800002 | REPLACEMENT COIL FOR ITEM #4           |
| 5                      | ELB01-5000006 | CHILL WATER IN/OUT & JACKET DRAIN SOL. |
| -                      | ELP00-0000000 | REPLACEMENT DINN CONN. FOR ITEM #5     |
| -                      | SP999-9900014 | REPLACEMENT KIT FOR ITEM #5            |
| -                      | SP998-8800002 | REPLACEMENT COIL FOR ITEM #5           |
| 6                      | MSB01-5000004 | BALL CONE CHECK VALVE                  |
| 7                      | AR800-5000001 | AIR QUICK DISCONNECT                   |
| 8                      | MSB00-7500001 | 50 MESH STRAINER                       |
| -                      | MSB00-7500006 | REPLACEMENT SCREEN FOR ITEM #8         |
| 9                      | AR800-2500015 | AIR REGULATOR                          |
| 10                     | VA800-2500001 | NO LEAK CHECK VALVE                    |
| 11                     | PB001-5000006 | JACKET DRAIN HOSE                      |
| 12                     | MSC00-7500007 | STEAM TRAP                             |
| -                      | SP999-9900018 | REPAIR KIT FOR ITEM #12                |
| 13                     | ELB01-0000004 | CONDENSATE SOLENOID                    |
| -                      | ELP00-0000000 | REPLACEMENT DINN CONN. FOR ITEM #13    |
| -                      | SP999-9900008 | REPLACEMENT KIT FOR ITEM #13           |
| -                      | SP998-8800003 | REPLACEMENT COIL FOR ITEM #13          |

| REPLACEMENT PARTS LIST |               |                                     |
|------------------------|---------------|-------------------------------------|
| ITEM                   | PART NO.      | DESCRIPTION                         |
| 14                     | MSB01-0000003 | BALL CONE CHECK VALVE               |
| 15                     | MSB01-5000001 | 50 MESH STRAINER                    |
| -                      | MSB01-5000003 | REPLACEMENT SCREEN FOR ITEM #15     |
| 16                     | PBF00-7500001 | SIMMER FLEX LINE                    |
| 17                     | MSB00-7500005 | BALL CONE CHECK VALVE               |
| 18                     | ELB00-7500016 | SIMMER SOLENOID                     |
| -                      | ELP00-0000000 | REPLACEMENT DINN CONN. FOR ITEM #18 |
| -                      | SP999-9900007 | REPLACEMENT KIT FOR ITEM #18        |
| -                      | SP988-8800003 | REPLACEMENT COIL FOR ITEM #18       |
| 19                     | ELB01-5000007 | STEAM IN SOLENOID                   |
| -                      | ELP00-0000000 | REPLACEMENT DINN CONN. FOR ITEM #19 |
| -                      | SP999-9900013 | REPLACEMENT KIT FOR ITEM #19        |
| -                      | SP988-8800003 | REPLACEMENT COIL FOR ITEM #19       |
| 20                     | PBB00-7500018 | FILL FAUCET                         |
| 21                     | ELB00-7500017 | DIGITAL COLD WATER METER            |
| 22                     | ELB00-7500015 | POTABLE WATER IN SOLENOID           |
| -                      | ELP00-0000000 | REPLACEMENT DINN CONN. FOR ITEM #22 |
| -                      | SP999-9900004 | REPLACEMENT KIT FOR SOLENOID #22    |
| -                      | SP988-8800002 | REPLACEMENT COIL FOR SOLENOID #22   |
| 23                     | ELB00-7500018 | DIGITAL HOT WATER METER (OPTIONAL)  |

J.C.PARDO & SONS INC.  
 1260 REAMES RD.   
 PHONE (410) 391-3800 FAX (410) 391-3042

|      |             |    |      |
|------|-------------|----|------|
| REV. | DESCRIPTION | BY | DATE |
|      | REVISIONS   |    |      |

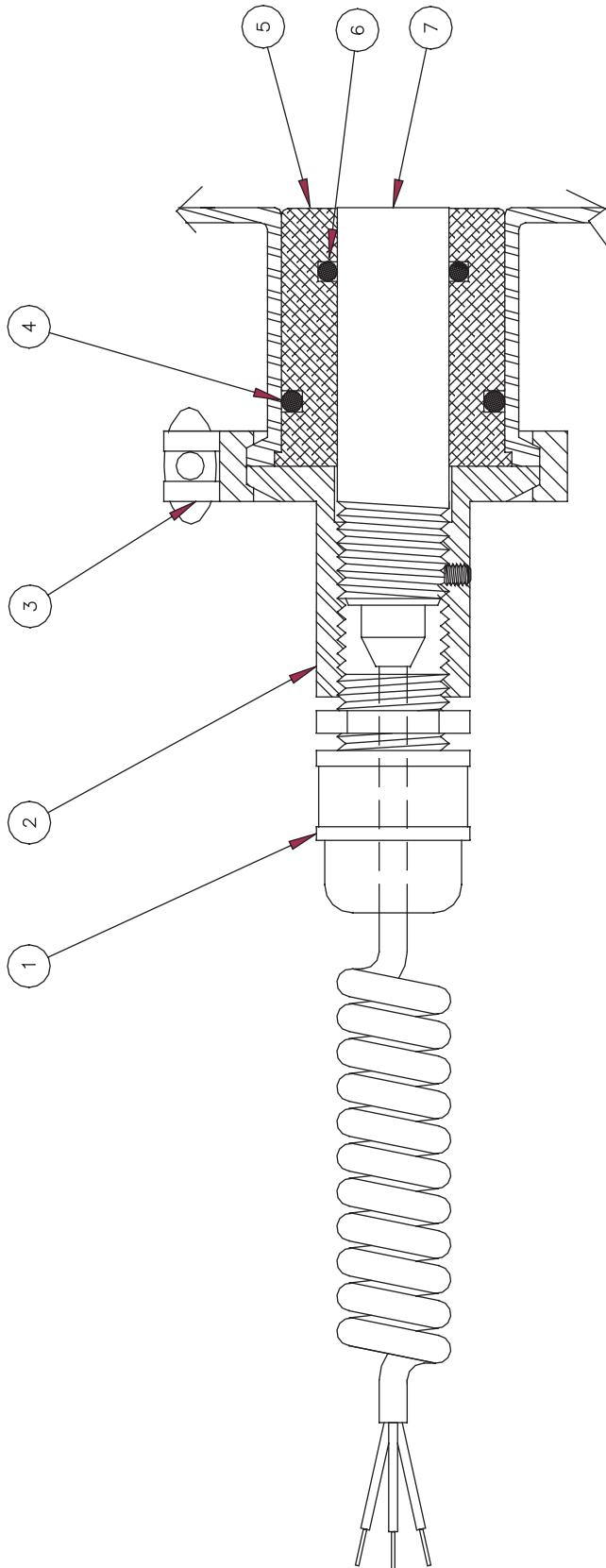
checked in JES  
 checked in  
 date 4/1/02  
 date 4/1/02  
 none  
 none

MKDL-300-CC PLUMBING W/DINN  
 CONNECTORS REPLACEMENT PARTS  
 C 11658  
 2 of 2



## REPLACEMENT PARTS

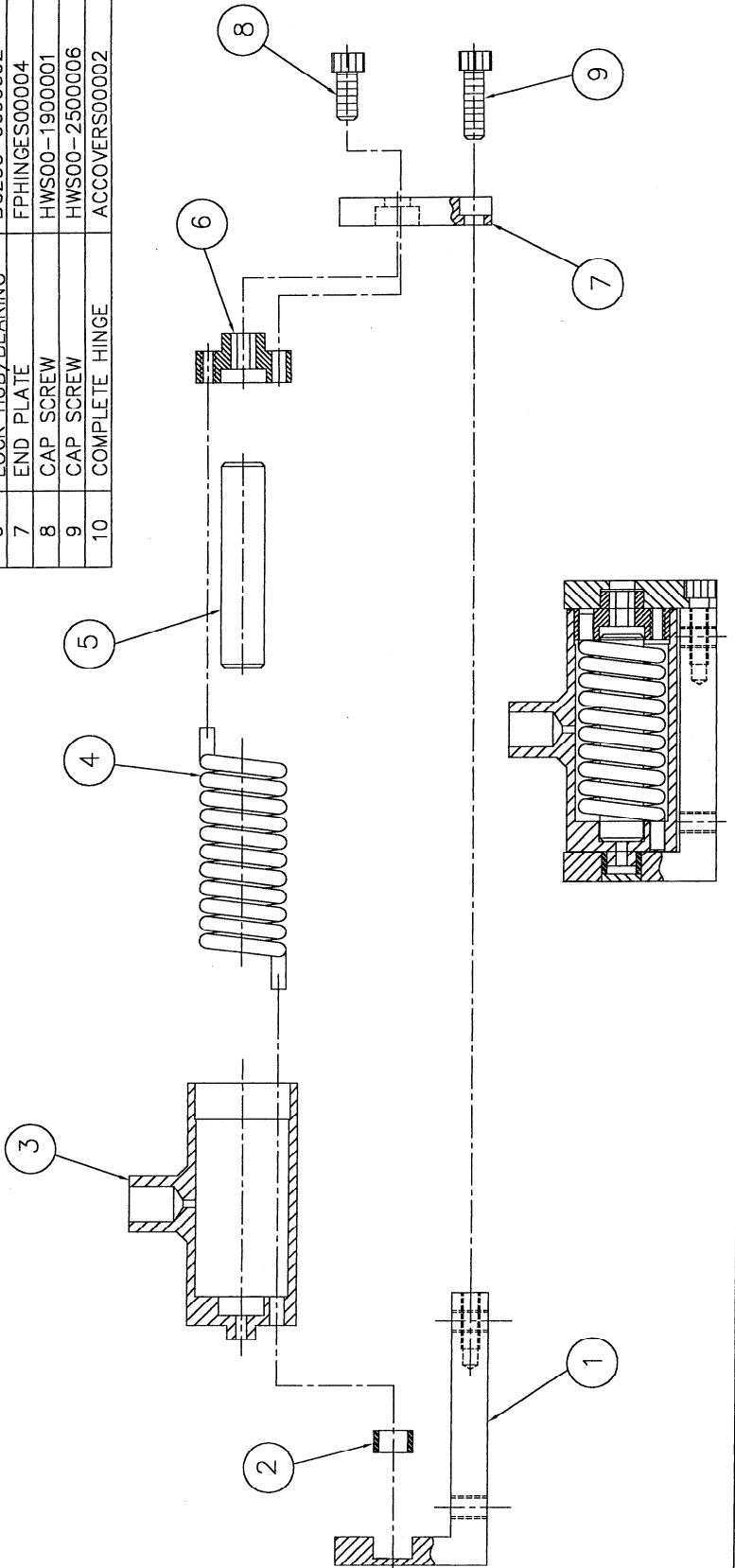
| REPLACEMENT PARTS |               |                    |
|-------------------|---------------|--------------------|
| ITEM              | PART NO.      | DESCRIPTION        |
| 1                 | ELC00-0000011 | WIRE RESTRAINT     |
| 2                 | TSSENSOR00001 | CAP ASSEMBLY       |
| 3                 | DFS02-0000002 | 2" TRI CLAMP       |
| 4                 | SE3ORING00004 | OUTER O-RING       |
| 5                 | SRSENSOR00001 | SEAL RETAINER      |
| 6                 | SE3ORING00005 | INNER O-RING       |
| 7                 | TSSENSOR00007 | TEMPERATURE SENSOR |



J. C. PARDO & SONS INC.  
1250 REAMES RD. BALTO. MD. 21220  
TELE 462-3300 FAX 462-3301

|   |             |    |      |
|---|-------------|----|------|
| <b>J.C.PARDO &amp; SONS INC.</b>  |             |    |      |
|  |             |    |      |
| <b>TEMPERATURE SENSOR W/RETRACTABLE CABLE<br/>REPLACEMENT PARTS</b>                   |             |    |      |
| REV.  | DESCRIPTION | BY | DATE |
|   | REVISIONS   |    |      |
| 1250 RIMES RD.  |             |    |      |
| BALTO. MD. 21220  |             |    |      |
| PHONE (410) 381-3600  |             |    |      |
| FAX (410) 381-9042  |             |    |      |
| C   |             |    |      |
| 11077   |             |    |      |
| DRAWING NUMBER:   |             |    |      |
| SHEET   |             |    |      |
| 1 of 1  |             |    |      |

| ITEM | DESCRIPTION      | PART NO.       |
|------|------------------|----------------|
| 1    | HINGE BASE       | FPHINGES00002  |
| 2    | BRONZE BEARING   | BGZ00-0000001  |
| 3    | HINGE BODY       | FPHINGES00001  |
| 4    | SPRING           | MSSPRING00004  |
| 5    | CENTERING ROD    | FPHINGES00003  |
| 6    | LOCK HUB/BEARING | BGZ00-0000002  |
| 7    | END PLATE        | FPHINGES00004  |
| 8    | CAP SCREW        | HWS00-19000001 |
| 9    | CAP SCREW        | HWS00-25000006 |
| 10   | COMPLETE HINGE   | ACCOVERS00002  |



⑩ HINGE ASSY.

JOB #: \_\_\_\_\_ QTY: \_\_\_\_\_

| HINGE / ACTUATOR ASSEMBLY & REPLACEMENT PARTS DETAIL   |   | SIZE: B | DRAWING NUMBER:<br>8539 |
|--|---|---------|-------------------------|
| UNLESS NOTED OTHERWISE<br>TOLERANCES ARE:<br>.XX = $\pm$<br>XXX = $\pm$<br>FRACT. = $\pm$<br>ANGLE = $\pm$<br>FINISH = RMS | This drawing and all information contained therein is the property of J.C.Pardo & Sons, Inc. Balto, MD. The drawing and all information contained herein is confidential and must not be made public or copied. It is loaned subject to return upon demand and is not to be used directly or indirectly in any way detrimental to J.C.Pardo & Sons. |         |                         |

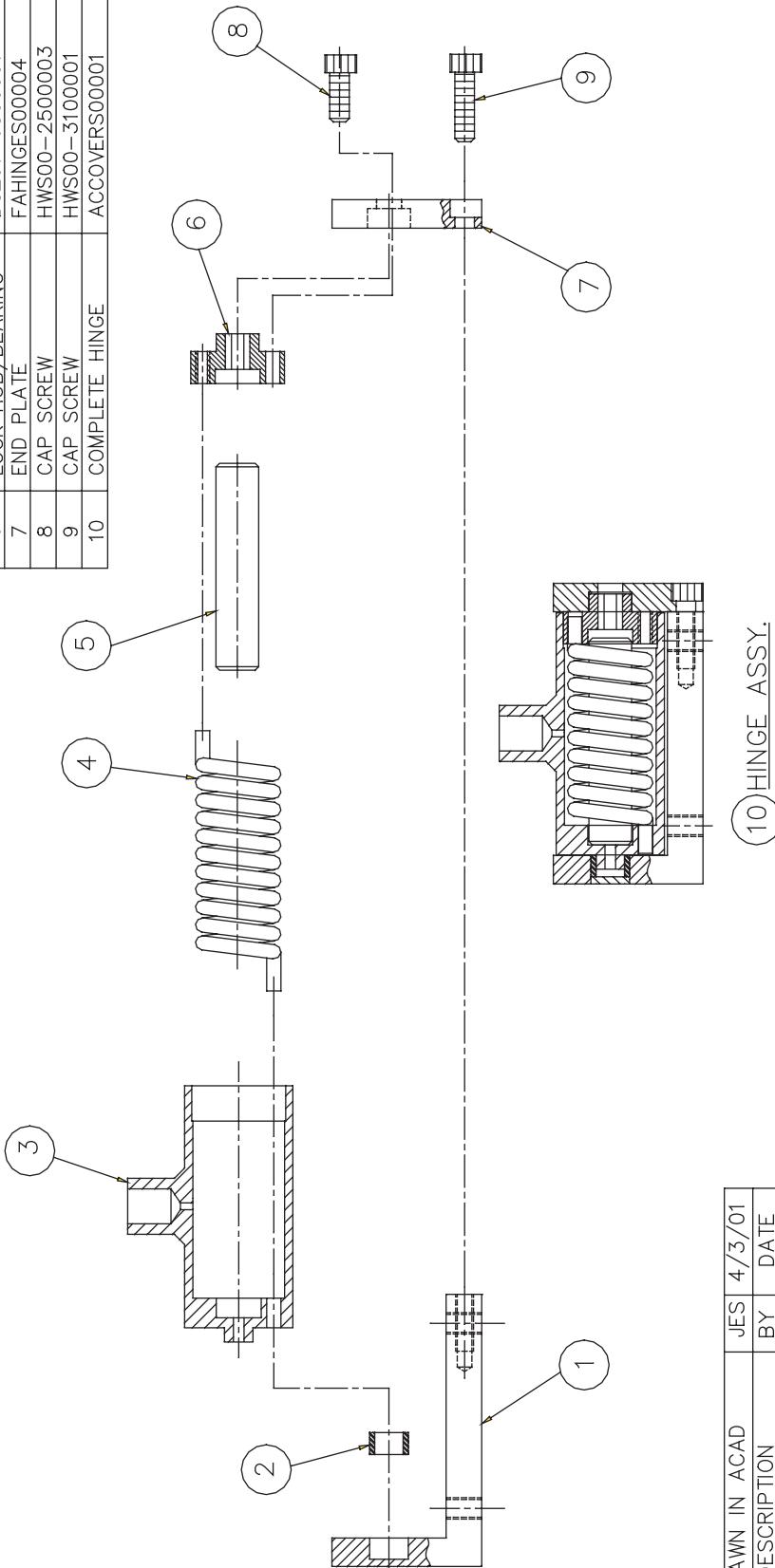
| A                     | REDRAWN IN ACAD | SME 4/24/00 |
|-----------------------|-----------------|-------------|
| REV.                  | DESCRIPTION     | BY DATE     |
| REVISIONS             |                 |             |
| J.C.PARDO & SONS INC. |                 |             |

CHECKED BY: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_

REV. A

1 of 1

| ITEM | DESCRIPTION      | PART NO.       |
|------|------------------|----------------|
| 1    | HINGE BASE       | FAHINGES000001 |
| 2    | BRONZE BEARING   | BGZ00-75000001 |
| 3    | HINGE BODY       | FAHINGES000002 |
| 4    | SPRING           | MSSPRING000001 |
| 5    | CENTERING ROD    | FAHINGES000003 |
| 6    | LOCK HUB/BEARING | BGZ01-65000001 |
| 7    | END PLATE        | FAHINGES000004 |
| 8    | CAP SCREW        | HWS00-25000003 |
| 9    | CAP SCREW        | HWS00-3100001  |
| 10   | COMPLETE HINGE   | ACCOVERS000001 |



|      |                 |     |        |
|------|-----------------|-----|--------|
| A    | REDRAWN IN ACAD | JES | 4/3/01 |
| REV. | DESCRIPTION     | BY  | DATE   |

#### REVISIONS

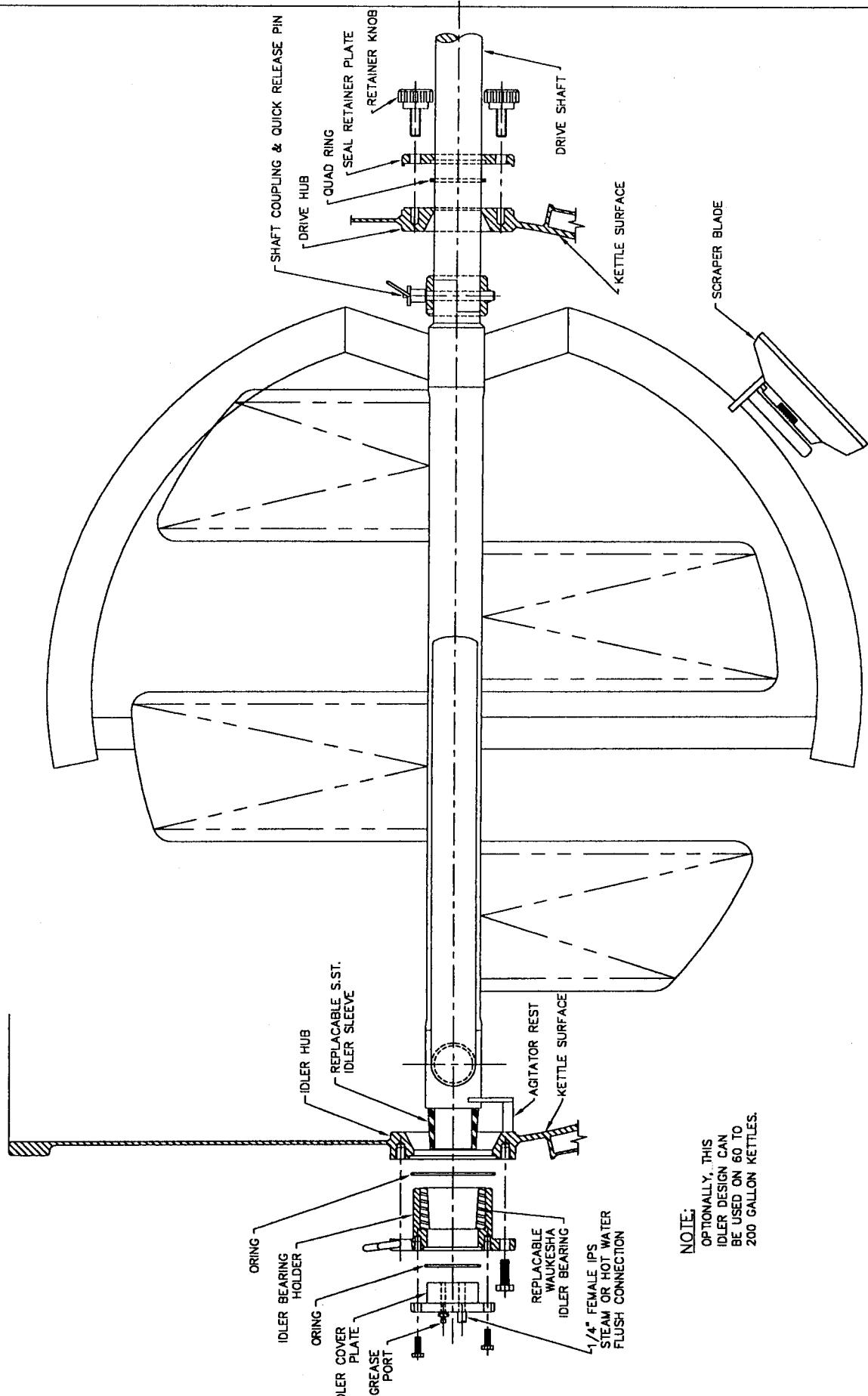
|                         |              |               |                            |                      |
|-------------------------|--------------|---------------|----------------------------|----------------------|
| J. C. PARDO & SONS INC. | CHECKED BY:  | DRAWN BY: JES | 150-200 GAL HINGE/ACTUATOR | SIZE: B              |
| 1250 REAMES RD.         | APPROVED BY: | DATE: 7-30-93 | REPLACEMENT PARTS          | DRAWING NUMBER: 8415 |
| BALTO MD. 21220         | SCALE: NONE  | BY            |                            | SHEET 1 of 1         |
| PHONE (410) 391-3600    |              | DATE          |                            |                      |
| FAX (410) 391-9042      |              |               |                            |                      |



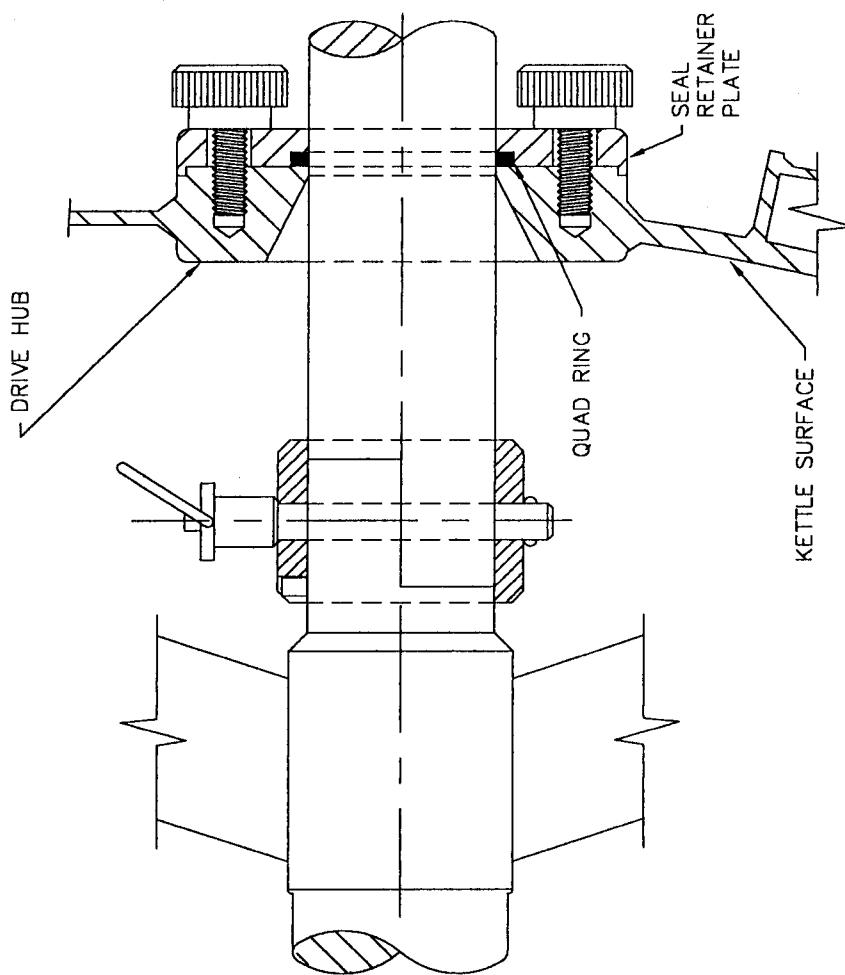
J.C. PARDO & SONS INC.

1250 REAMES RD.  
BALTO MD. 21220  
PHONE (410) 391-3600  
FAX (410) 391-9042

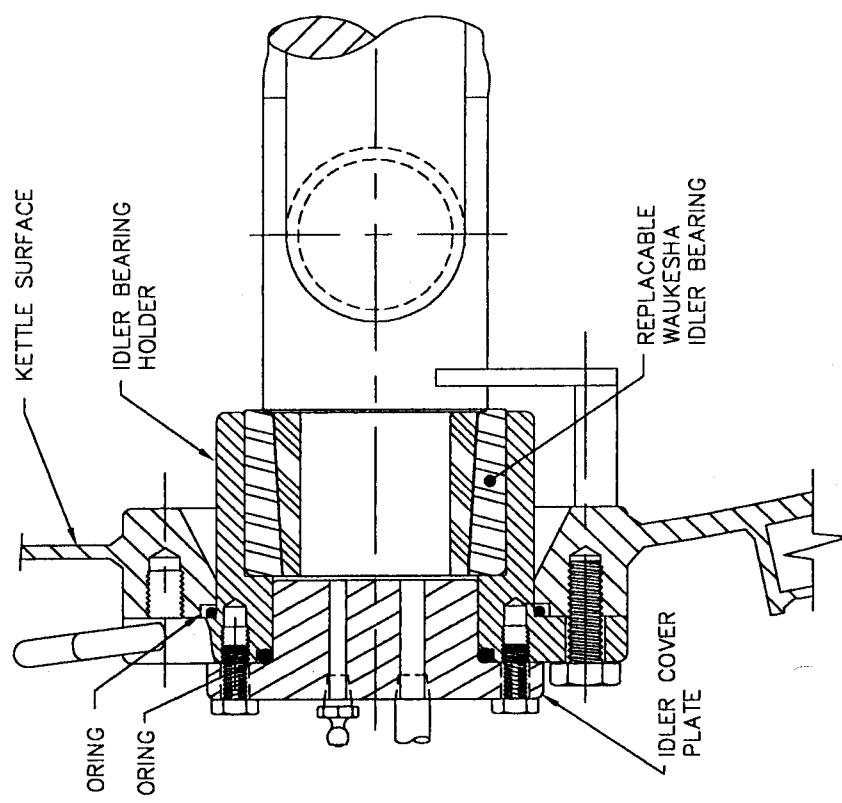
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| REV. | DESCRIPTION   | BY          | DATE    | APPROVED BY | DATE | CHANGED BY | DATE   |
|------|---|-------------|---------|-------------|------|------------|--------|
|      | J.C.PARDO & SONS INC.<br>1250 REAMES RD.<br>BALTO MD. 21220<br>PHONE (410) 361-3600 | JAY S.<br>P | 9/21/00 |             |      | C<br>8990  | 1 of 2 |

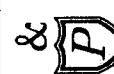


DRIVE END



IDLER END

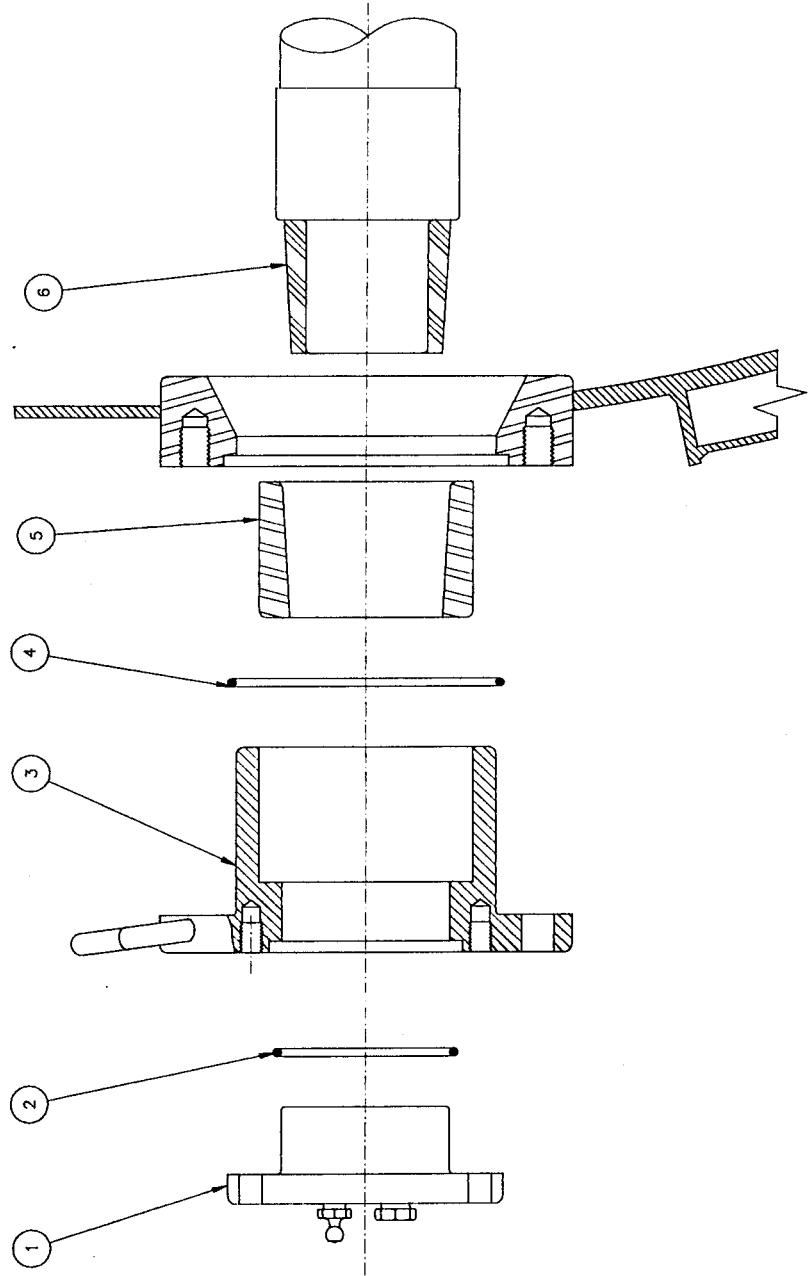
| 300-HAK CLEANING DETAIL<br>IDLER & DRIVE HUB ASSEMBLY                               |                | SIZE<br>B   | DRAWING NUMBER<br>8990 |
|---|----------------|---|------------------------|
| DRIVEN BY: SE   | DATE: 9/21/00  |   |                        |
| APPROVED BY:  | SCALE: NONE    | REV.  | SHEET<br>2 of 2        |
| J.C.PARDO & SONS INC.<br>1250 REAMES RD.<br>BALTO MD. 21220<br>PHONE (410) 391-3600 | ORING<br>ORING | This drawing and all information contained therein is the property<br>of J.C.Pardo & Sons, Inc. Balto MD.<br>It is to be used only for the purpose for which it was issued<br>and is not to be reproduced, copied, or transmitted<br>in whole or in part, to any other person or used<br>directly or indirectly in any way detrimental to J.C.Pardo & Sons. |                        |



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BALTO MD. 21220  
PHONE (410) 391-3600

## REPLACEMENT PARTS

| ITEM | PART NO.       | DESCRIPTION              |
|------|----------------|--------------------------|
| 1    | 1FS04-5000001  | COVER PLATE              |
| 2    | SE30RING00016  | O-RING                   |
| 3    | 1FS07-0000001  | IDLER END BEARING HOLDER |
| 4    | SE30RING00017  | O-RING                   |
| 5    | 1FK03-5000001  | IDLER END BEARING        |
| 6    | 1FS02-75000007 | IDLER END SLEEVE         |



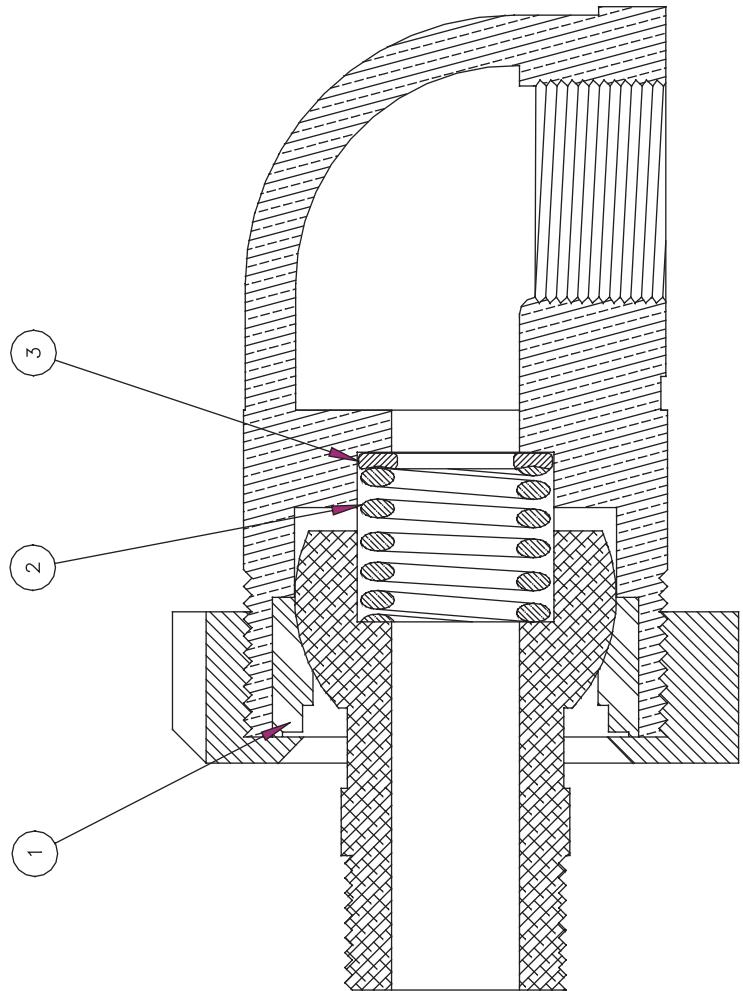
| 300 GALLON IDLER END REPLACEMENT PARTS |                 | DRAWING NUMBER |
|--|-----------------|----------------|
| ORDERED BY: J.C.PARDO & SONS INC.      | PRINTED BY: TMK | 11221          |
| APPROVED BY: 10/3/96                   | DATE: 9/16/96   | REV. C         |

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| REV. | DESCRIPTION | BY | DATE |
|------|-------------|----|------|
|      | REVISIONS   |    |      |

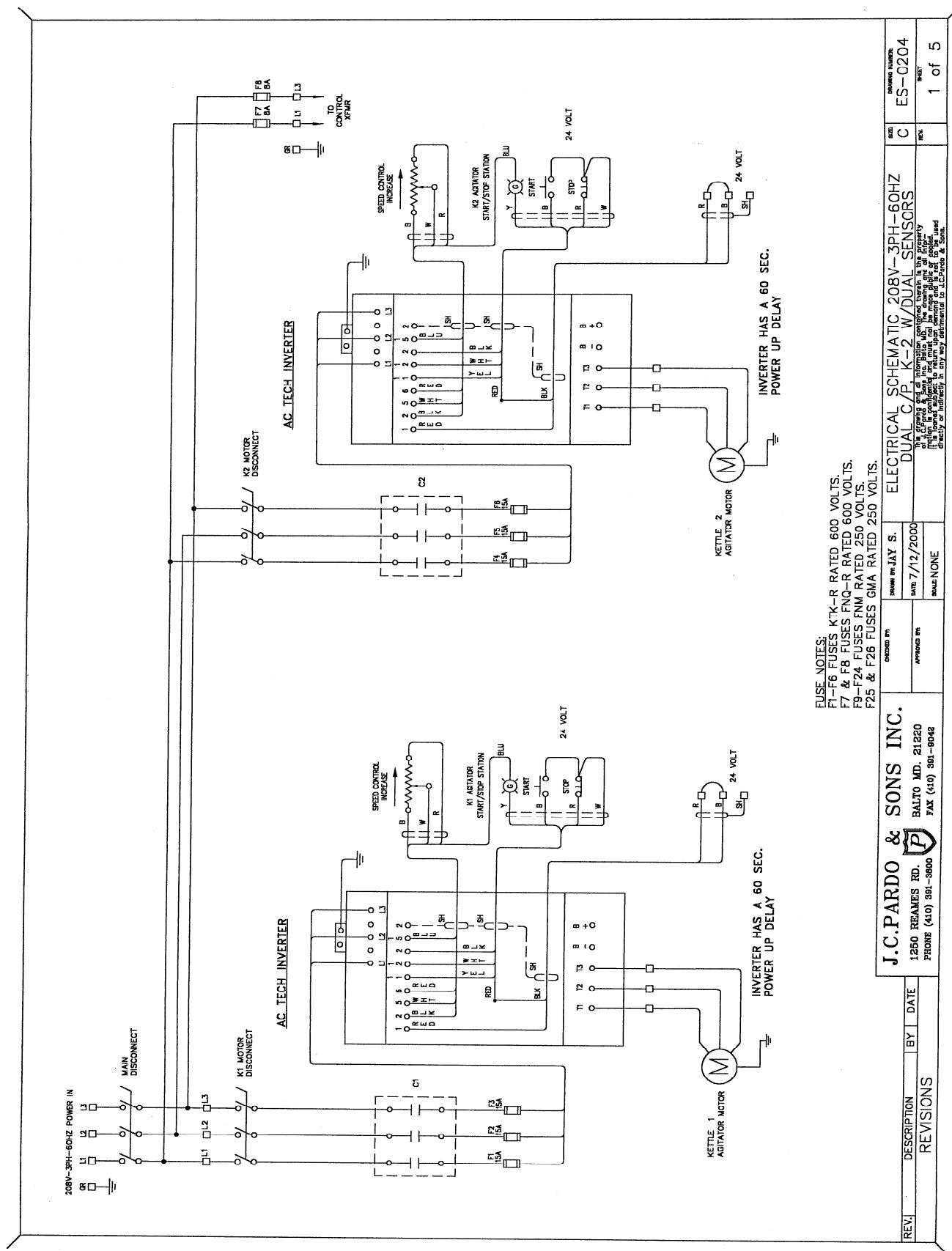
1250 REAMES RD. BALTO MD. 21220  
PHONE: (410) 391-3800 FAX (410) 391-9042

| REPLACEMENT PARTS LIST |                    |
|------------------------|--------------------|
| ITEM                   | PART NO.           |
| 1                      | SETSEALS00002      |
| 2                      | MSSPRING00006      |
| 3                      | MSSPRING00011      |
| 4                      | MSC01-2500001      |
|                        | 1 1/4" BARCO JOINT |



④ COMPLETE UNIT

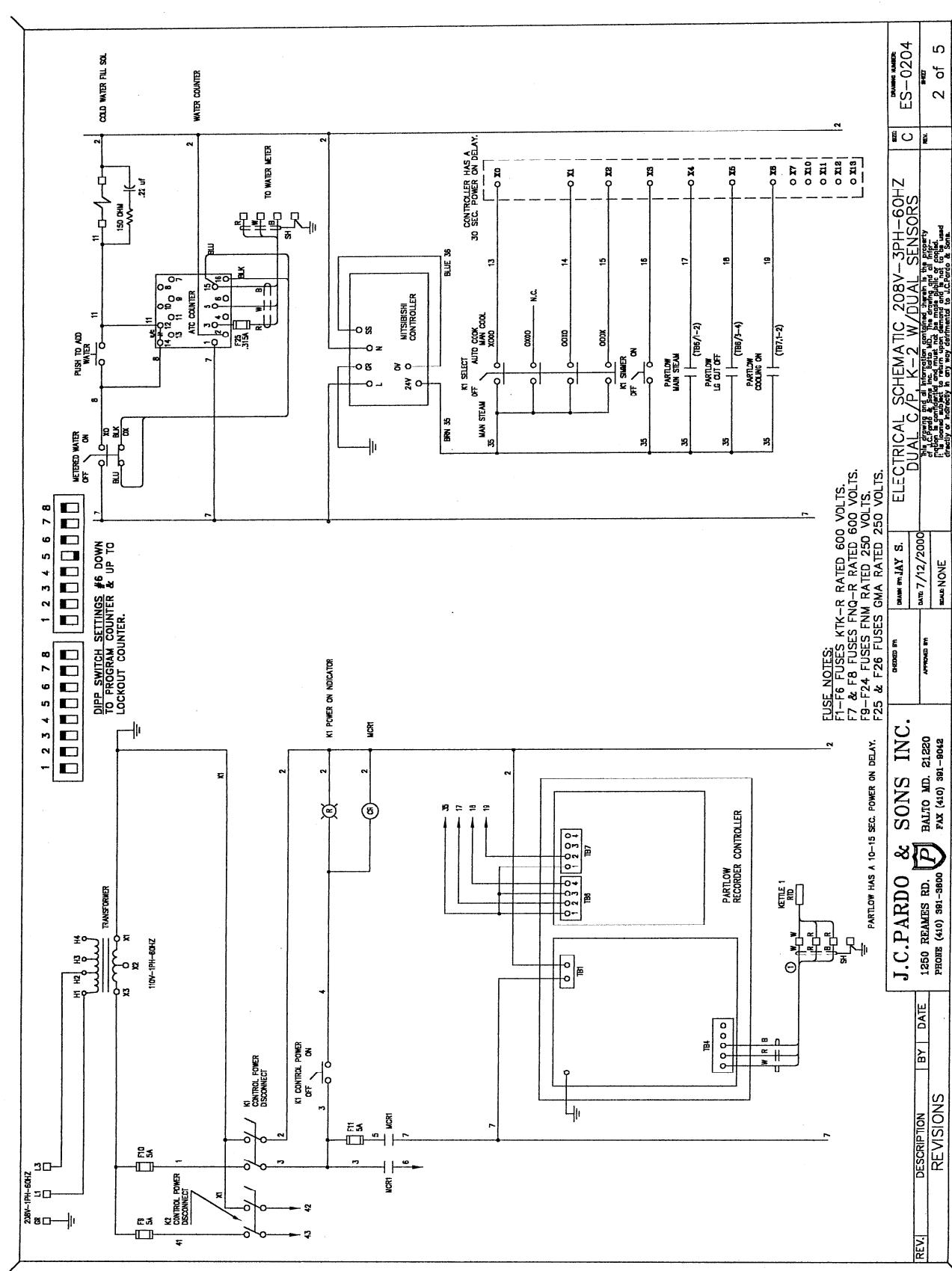
|   |             |             |              |      |                |
|---|-------------|-------------|--------------|------|----------------|
| J.C.PARDO & SONS INC.   |             | CHECKED BY  | DRWNS BY JES | SIZE | DRAWING NUMBER |
| 1250 REAMES RD.<br>BALTO MD. 21220<br>PHONE (410) 391-3800  |             | APPROVED BY | DATE 2/20/95 | C    | C 11079        |
| REV.  | DESCRIPTION | BY          | DATE         | REV. | REV.           |
|   | REVISIONS   |             |              | C    | C              |
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| 1 of 1  |             |             |              |      |                |

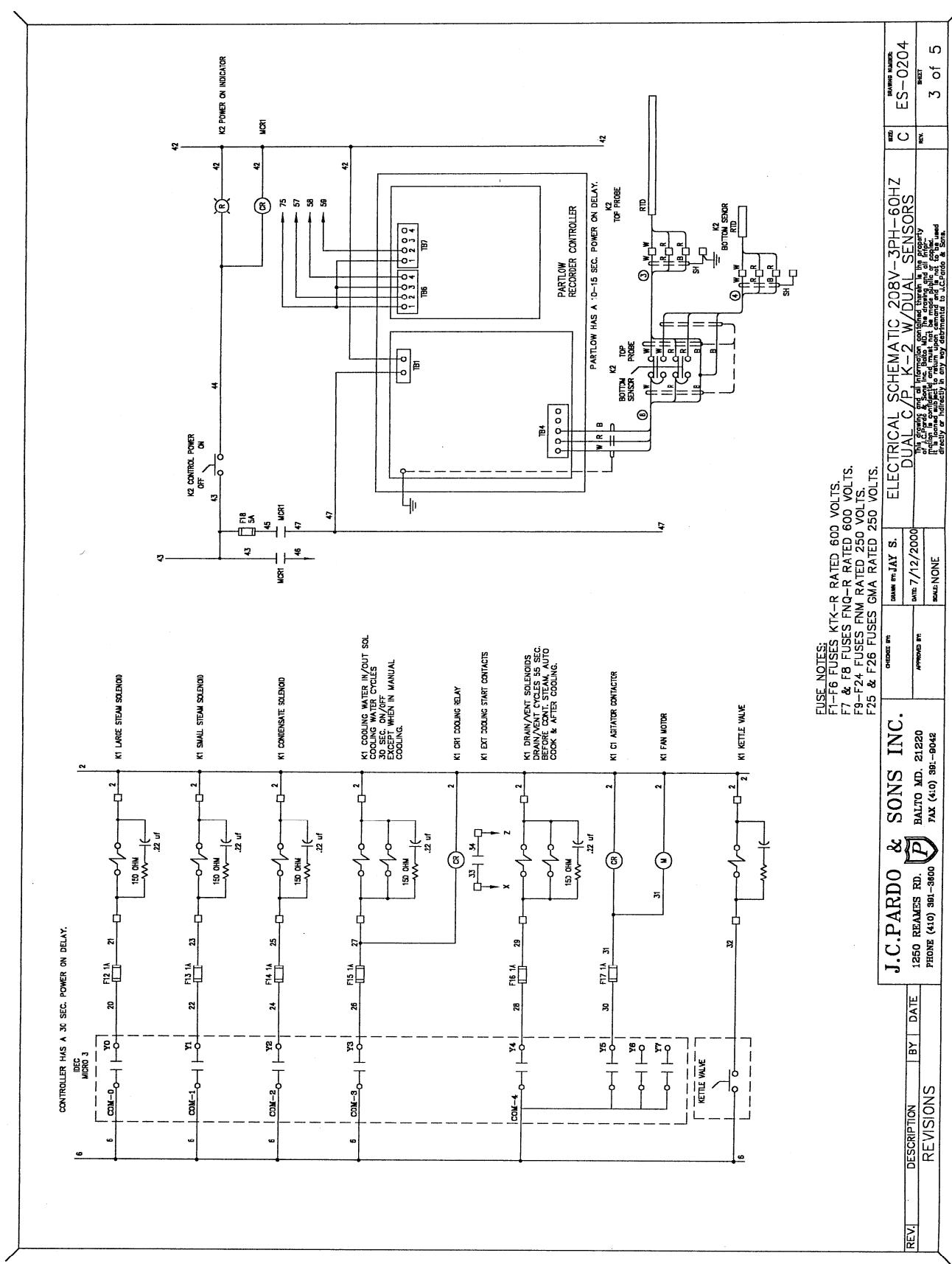


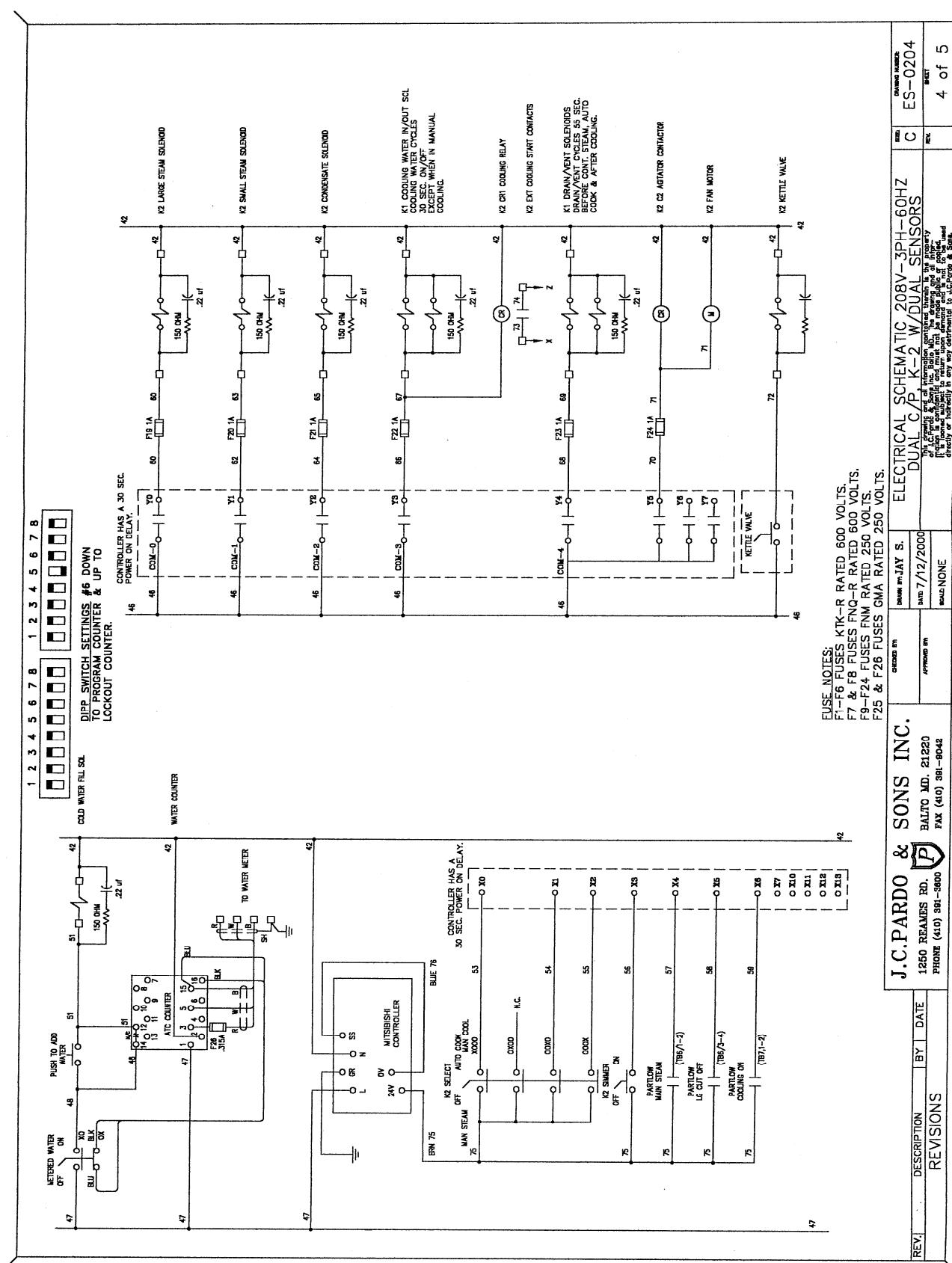
|           |             |    |      |
|-----------|-------------|----|------|
| REV.      | DESCRIPTION | BY | DATE |
| REVISIONS |             |    |      |

|                                 |                        |   |                       |                                   |
|---------------------------------|------------------------|---|-----------------------|-----------------------------------|
| <b>C. PARDÒ &amp; SONS INC.</b> |                        | <b>ELECTRICAL SCHEMATIC 208V-3PH-60HZ</b> |                       | DRAWING NUMBER:<br><b>ES-0204</b> |
|                                 |                        | <b>DUAL C/P K-2 W/DUAL SENSORS</b>        | <b>REV. C</b>         |                                   |
| <b>50 PRAMES RD.</b>            | <b>BALTO MD. 21220</b> | <b>APPROVED BY</b>                        | <b>DATE 7/12/2000</b> |                                   |
| <b>PHONE (410) 391-9600</b>     |                        | <b>ROLE: NONE</b>                         |                       |                                   |

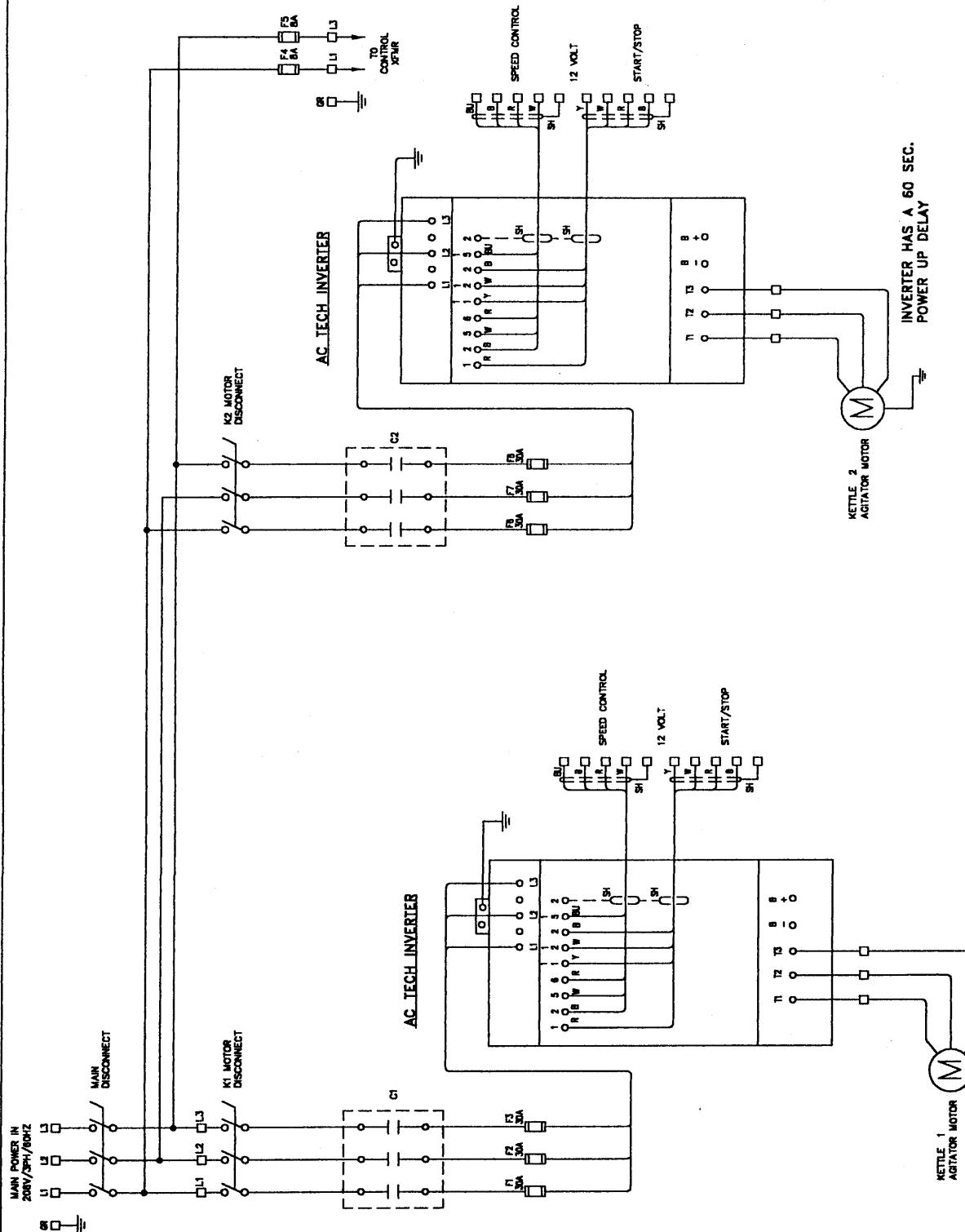
**FUSE NOTES.**  
**F1-F6** FUSES K7K-R RATED 600 VOLTS.  
**F7 & F8** FUSES FNQ-R RATED 600 VOLTS.  
**F9-F24** FUSES FNM RATED 250 VOLTS.  
**F25 & F26** FUSES GMA RATED 250 VOLTS.











FUSE NOTES:  
 F1-F3, F6-F8 FUSES KTK-R RATED 600 VOLTS.  
 F4, F5, FUSES FNQ-R RATED 600 VOLTS.  
 F9-F24 FUSES FNW RATED 250 VOLTS.  
 F25 & F26 FUSES GMA RATED 250 VOLTS.

|      |                     |          |           |      |
|------|---------------------|----------|-----------|------|
| A    | 460V/SHP WAS 15 AMP | JES 6/01 | ISSUED BY | DATE |
| REV. | DESCRIPTION         |          |           |      |
|      |                     |          |           |      |
|      | REVISIONS           |          |           |      |

**J. C. PARDO & SONS INC.**  
 1260 REAMES RD.   
 FAX (410) 381-3600  
 PHONE (410) 381-0043

|           |      |      |           |           |      |      |           |
|-----------|------|------|-----------|-----------|------|------|-----------|
| ISSUED BY | DATE | REV. | REVISIONS | ISSUED BY | DATE | REV. | REVISIONS |
|           |      |      |           |           |      |      |           |
|           |      |      |           |           |      |      |           |

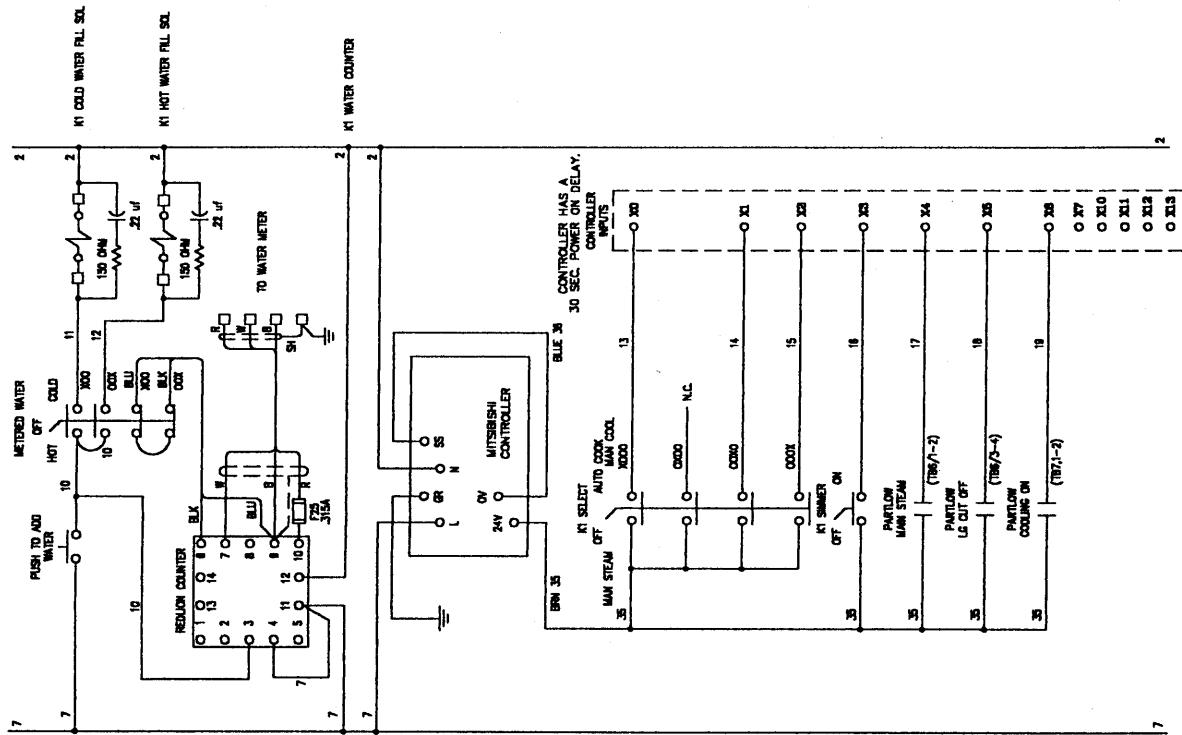
**ELECTRICAL SCHEMATIC 208V SHP DUAL CONTROL PANEL HOT/COLD**

1 of 5

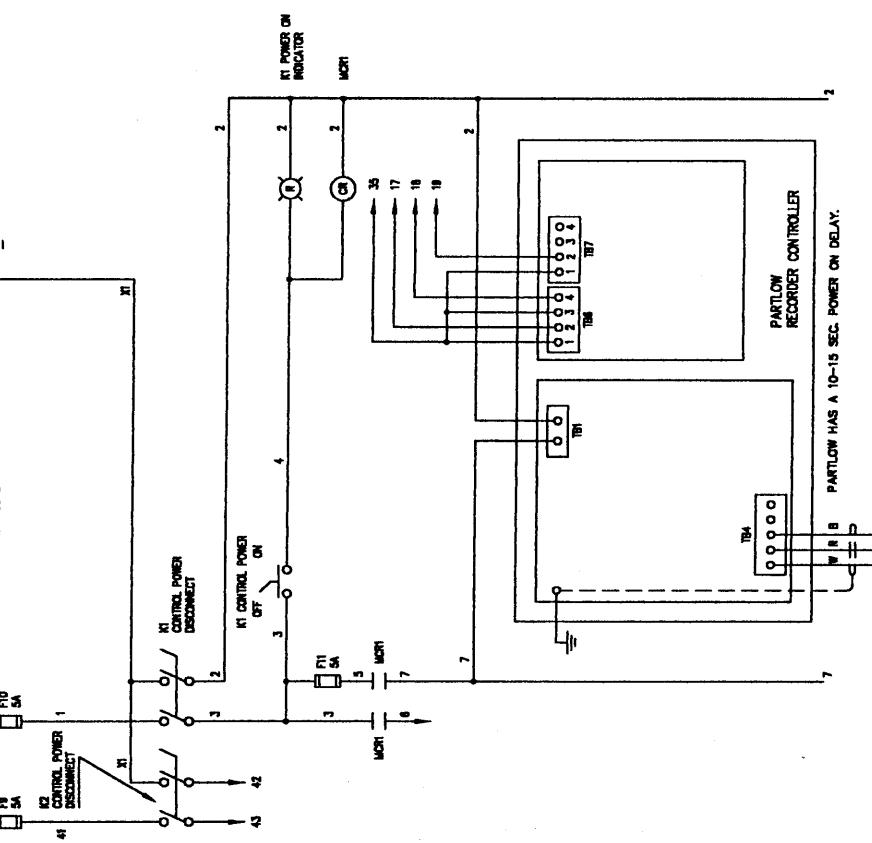
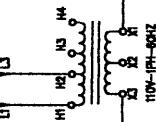
## REDLION WATER COUNTER DIP SWITCH SETTINGS



DIP SWITCH #7 DOWN TO PROGRAM,  
COUNTER & UP TO LOCKOUT COUNTER.



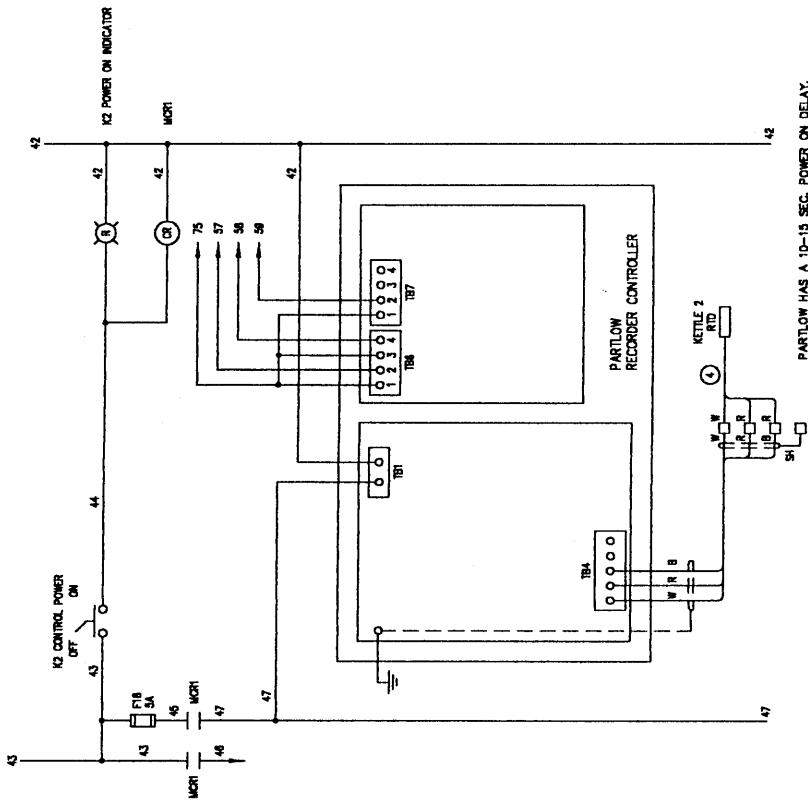
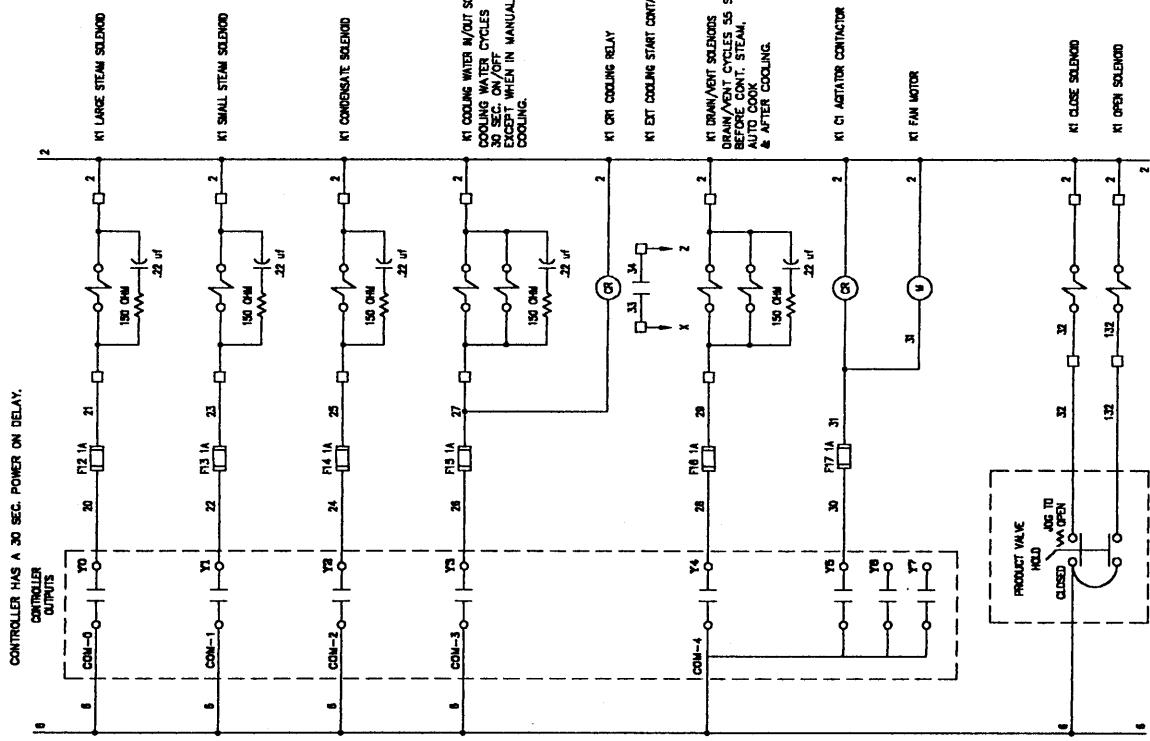
208V-1PH-60HZ



**J.C. PARDO & SONS INC.**  
1250 REAMES RD. BALTO MD. 21220  
PHONE (410) 381-3800 TAX (410) 381-9043

| REV. | DESCRIPTION | BY | DATE |
|------|-------------|----|------|
|      | REVISIONS   |    |      |

| ELECTRICAL SCHEMATIC 208V 5HP DUAL CONTROL PANEL HOT/COLD |            | C       | ES-0301 |
|---|------------|---------|---------|
| CHANGED BY  | INITIAL BY | DATE    | REVIS.  |
|   |            | 1/28/02 | 2 of 5  |



CONTROLLER HAS A 30 SEC. POWER ON DELAY.

|                         |                        |   |                               |   |
|-------------------------|------------------------|---|-------------------------------|---|
| K1 SMALL STEAM SOLENOID | K1 CONDENSATE SOLENOID | K1 COOLING WATER IN/OUT SOLENOID  | K1 ON COOLING RELAY           | K1 DRAIN/VENT SOLENOIDS   |
|                         |                        | COOLING WATER CYCLES<br>30 SEC. ON/OFF<br>EXCEPT WHEN IN MANUAL<br>COOLING. | K1 EXT COOLING START CONTACTS | DRAIN/VENT CYCLES 55 SEC.<br>BEFORE, ON/CONT. STEAM,<br>ON/CONT. WATER,<br>ON/CONT. AUTO COOK<br>& AFTER COOLING. |

BEFORE COOK. STEAM,  
AUTO COOK  
& AFTER COOKING

三九經

11. CLOSE SOLENOID

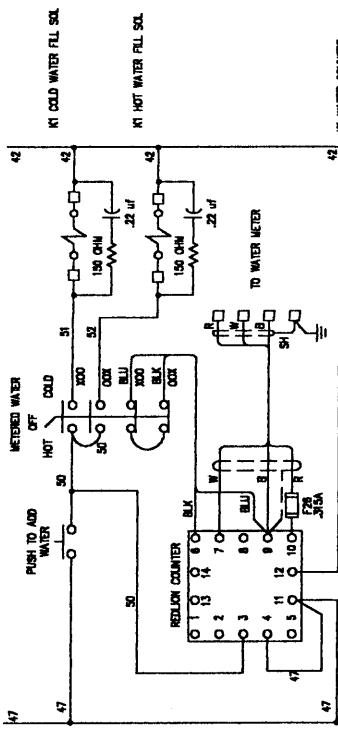
J.C. PARDO & SONS INC.  
1250 REAMES RD.   
BALTO. MD. 21220

|  |                 |             |              |
|--|-----------------|-------------|--------------|
| <b>J.C.PARDO &amp; SONS INC.</b><br><br>1620 REAMES RD. <b>D</b> BALTO. MD. 21220<br>PHONE (410) 381-3500 FAX (410) 381-9042 |                 |             |              |
| REV.   | DESCRIPTION     | BY          | DATE         |
| REVISIONS  |                 |             |              |
| UNNUMBERED   | TRANSMISSION JS | APPROVED BY | DATE 1/28/02 |
| ELECTRICAL SCHEMATIC 208V 5HP<br>DUAL CONTROL PANEL HOT/COLD   |                 |             |              |
| DRAWING NUMBER: ES-0301<br>SHEET 3 of 5  |                 |             |              |

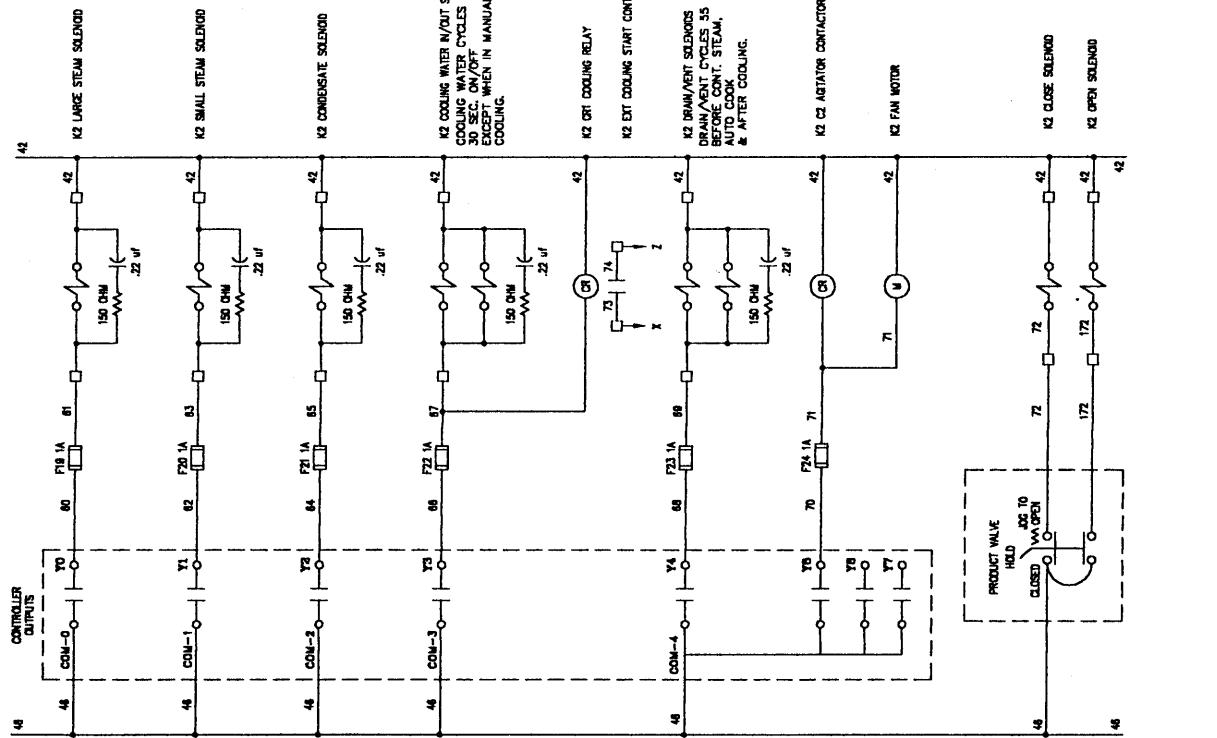
## REDIJON WATER COUNTER DIPPER SWITCH SETTINGS

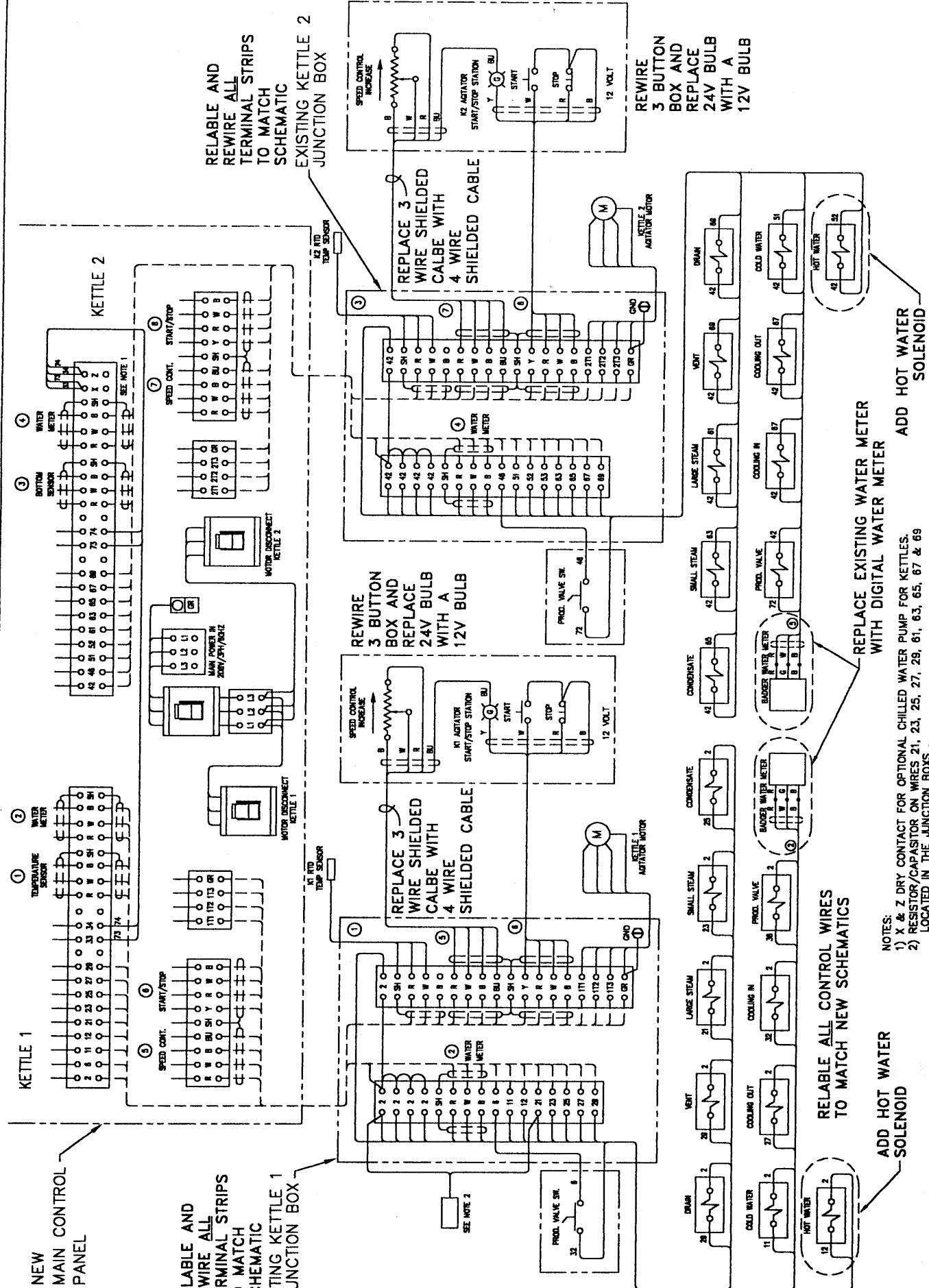


DIPPER SWITCH #7 DOWN TO PROGRAM  
COUNTER & UP TO LOCKOUT COUNTER.



CONTROLLER HAS A 30 SEC. POWER ON DELAY.  
CONTROLLER OUTBITS





NOTES:  
1) X &  
2) RES LOC

NOTES:  
1) X & Z DRY CONTACT FOR OPTIONAL CHILLED WATER PUMP FOR KETTLES.  
2) RESISTOR/CAPACITOR ON WIRES 21, 23, 25, 27, 29, 61, 63, 65, 67 & 69  
LOCATED IN THE JUNCTION ROHS.

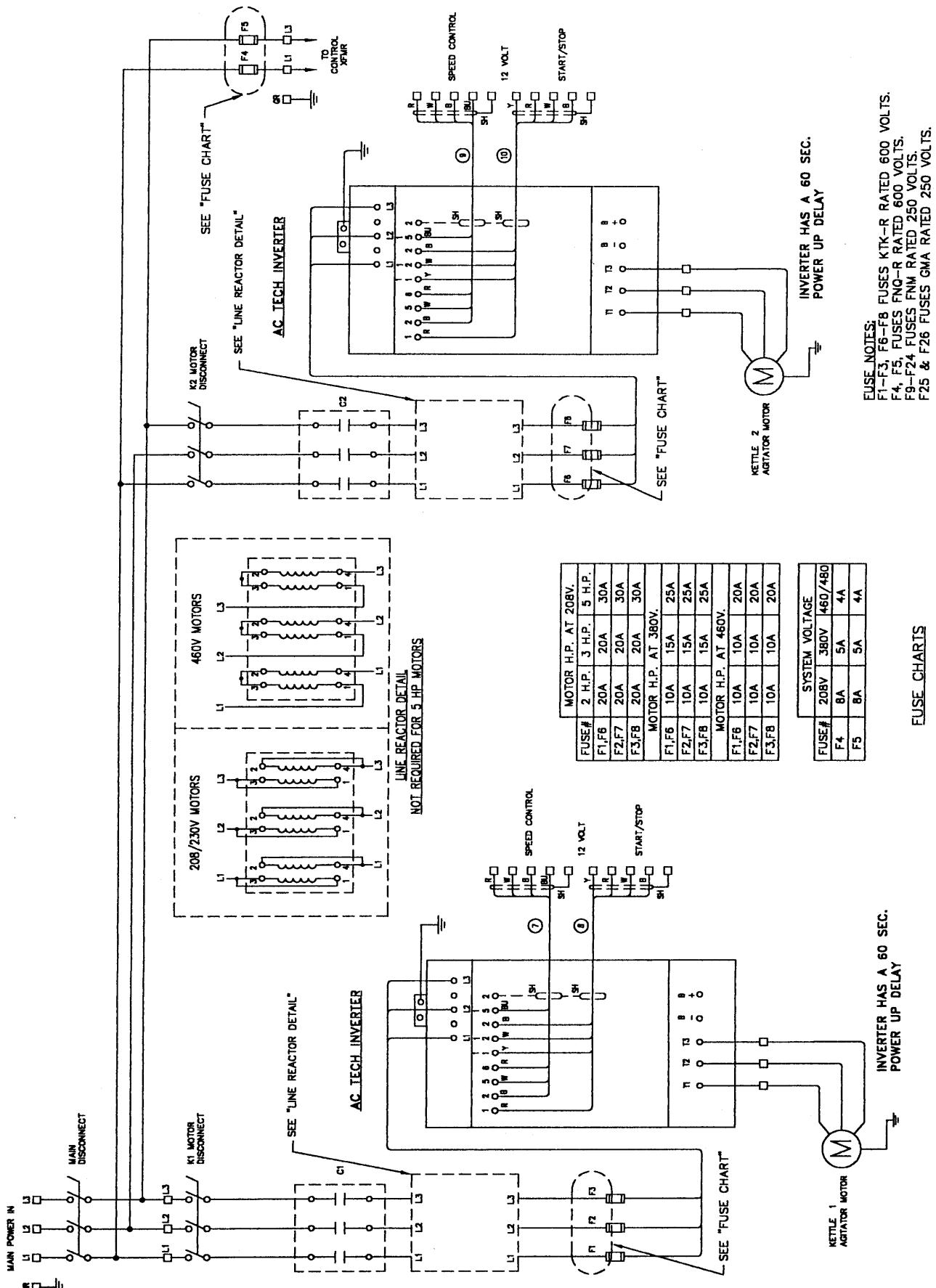
ER PUMP FOR KETTLES.  
9, 61, 63, 65, 67 & 69  
WITH DIGITAL WATER METER  
ADD HOT WATER  
SOL

WATER SOLENOID

J. C. PARDO & SONS INC.  
1250 REAMES RD. [P] BALTO MD. 21220

REV. | DESCRIPTION | REVISIONS |

**ELECTRICAL SCHEMATIC 208V, 5HP  
DUAL CONTROL PANEL HOT/COLD**



J.C.PARDO & SONS INC.

1250 REAMES RD.   
BALTO MD. 21220  
PHONE (410) 381-9800

REVISIONS

checked in

drawn in/s

date 6/01

approved in

date 1/28/02

revised none

REV.

DESCRIPTION

BY DATE

REV. 1 of 5

ELECTRICAL SCHEMATIC 208/230/380/460V  
DUAL CONTROL PANEL K-1 W/DUAL SENSORS

C

ES-0300

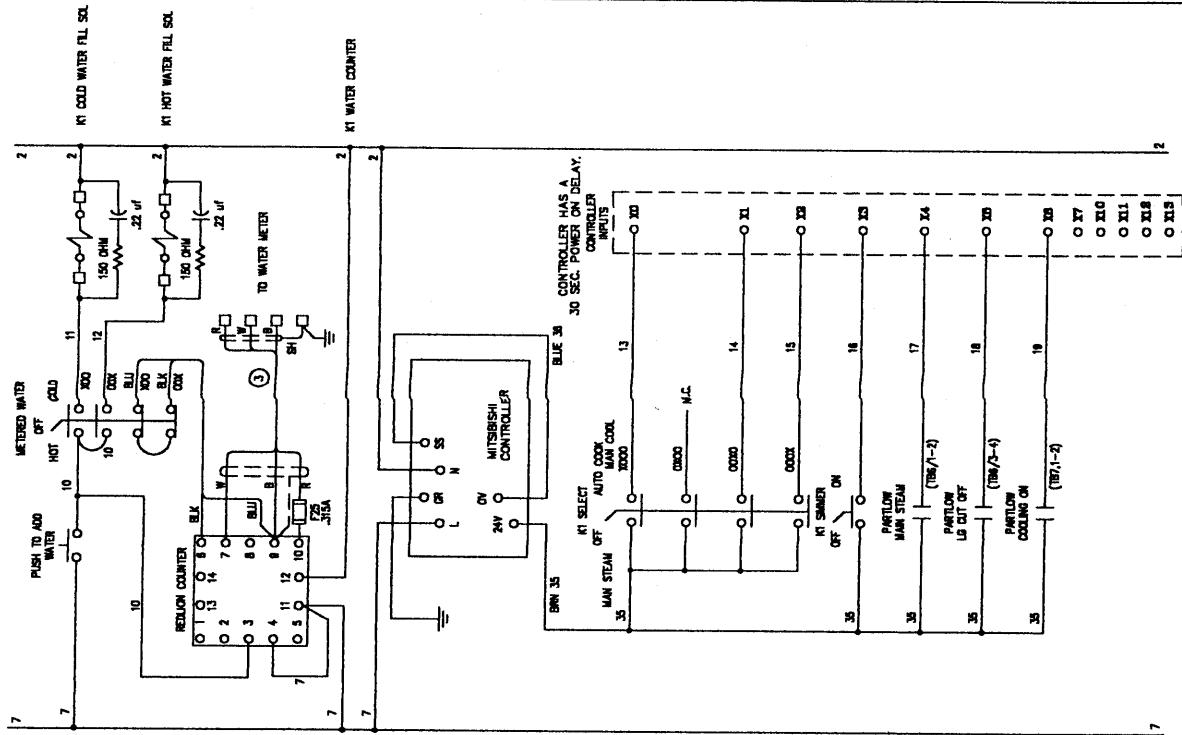
FUSE NOTES:  
F1-F3, F6-F8 FUSES KTK-R RATED 600 VOLTS.  
F4, F5, F9-F24 FUSES FNO-R RATED 600 VOLTS.  
F9-F24 FUSES FMW RATED 250 VOLTS.  
F25 & F26 FUSES GMA RATED 250 VOLTS.

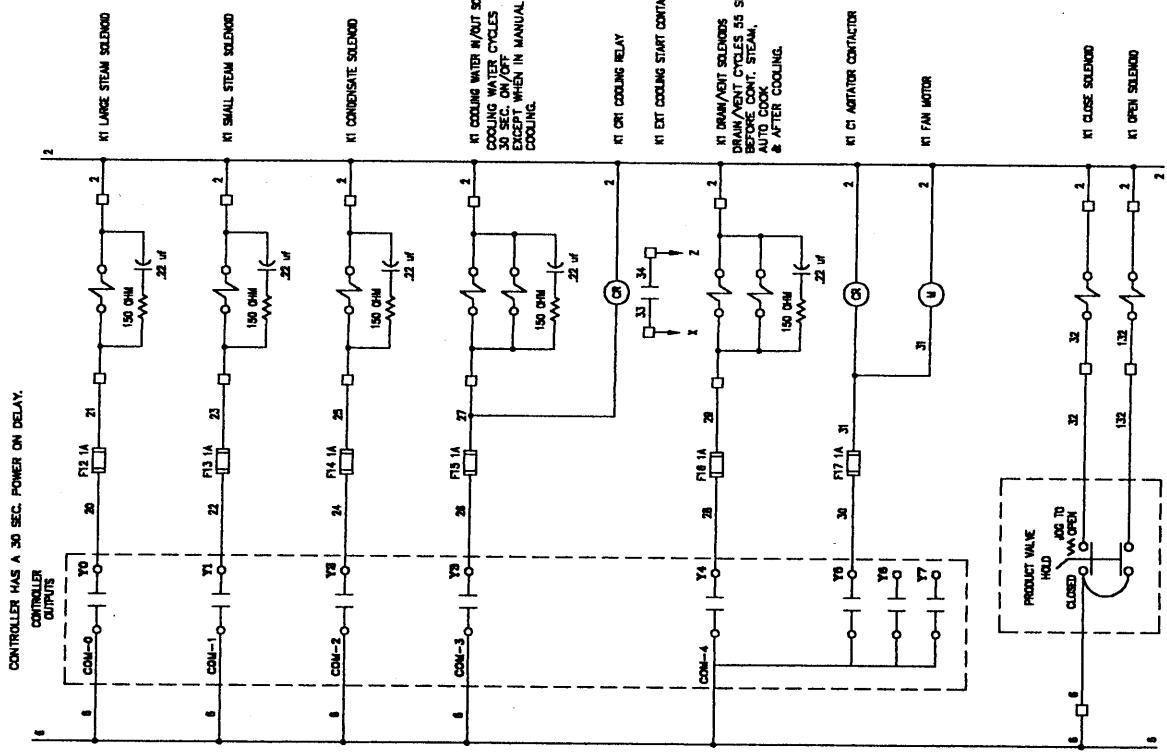
FUSE CHARTS

REDLION WATER COUNTER DPIP SWITCH SETTINGS



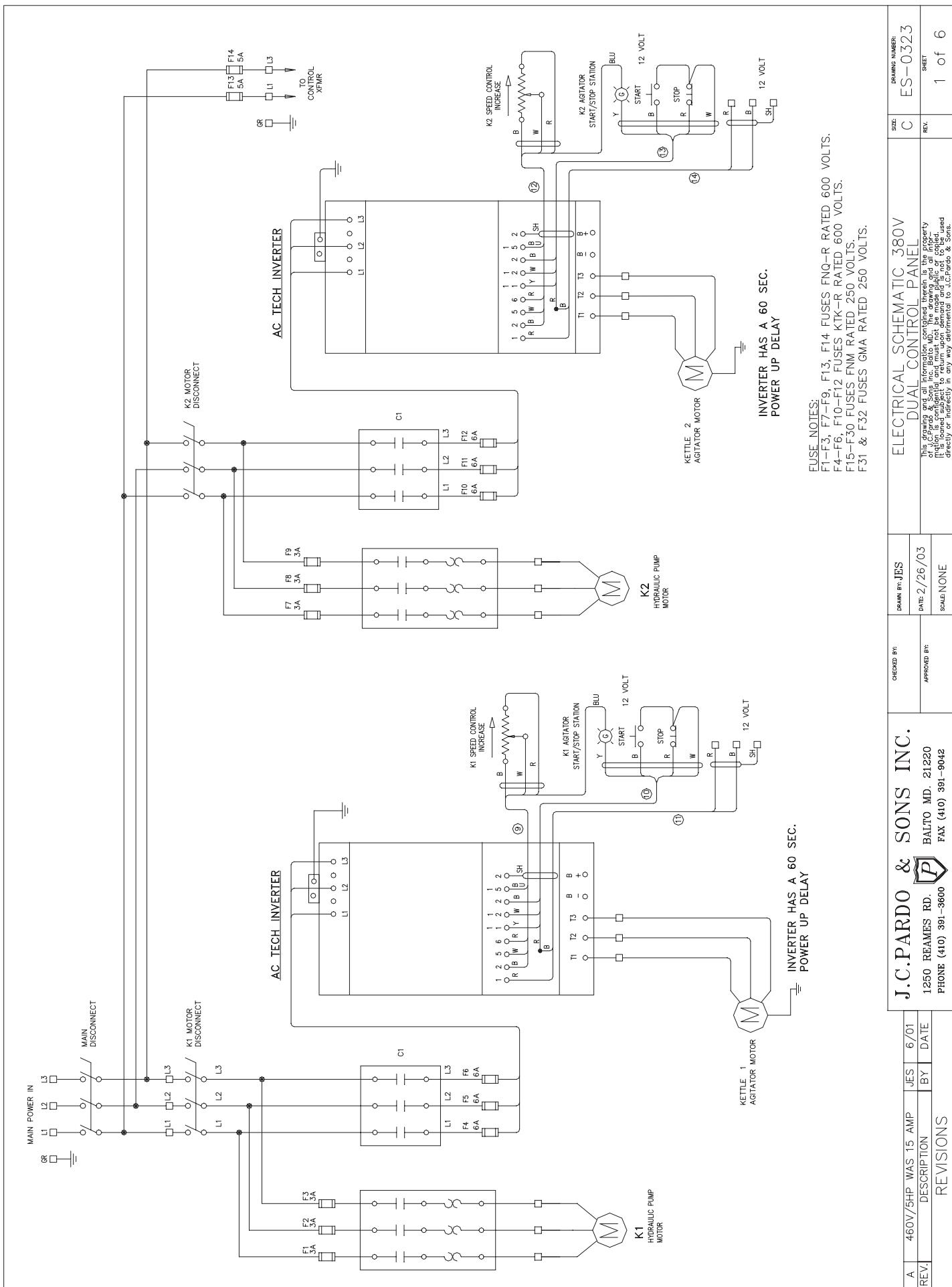
DPIP SWITCH #7 DOWN TO PROGRAM  
COUNTER & UP TO LOCKOUT COUNTER.

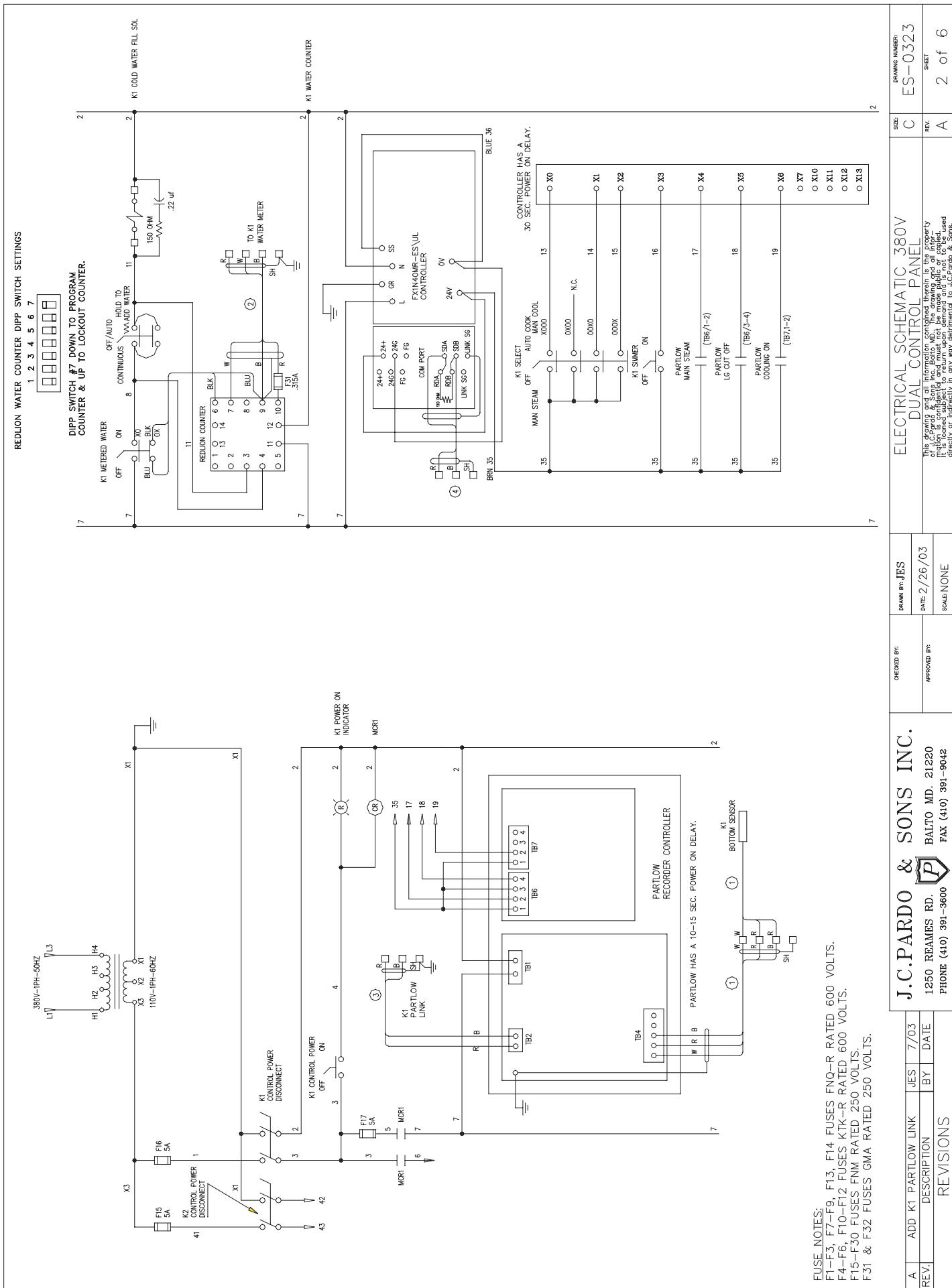


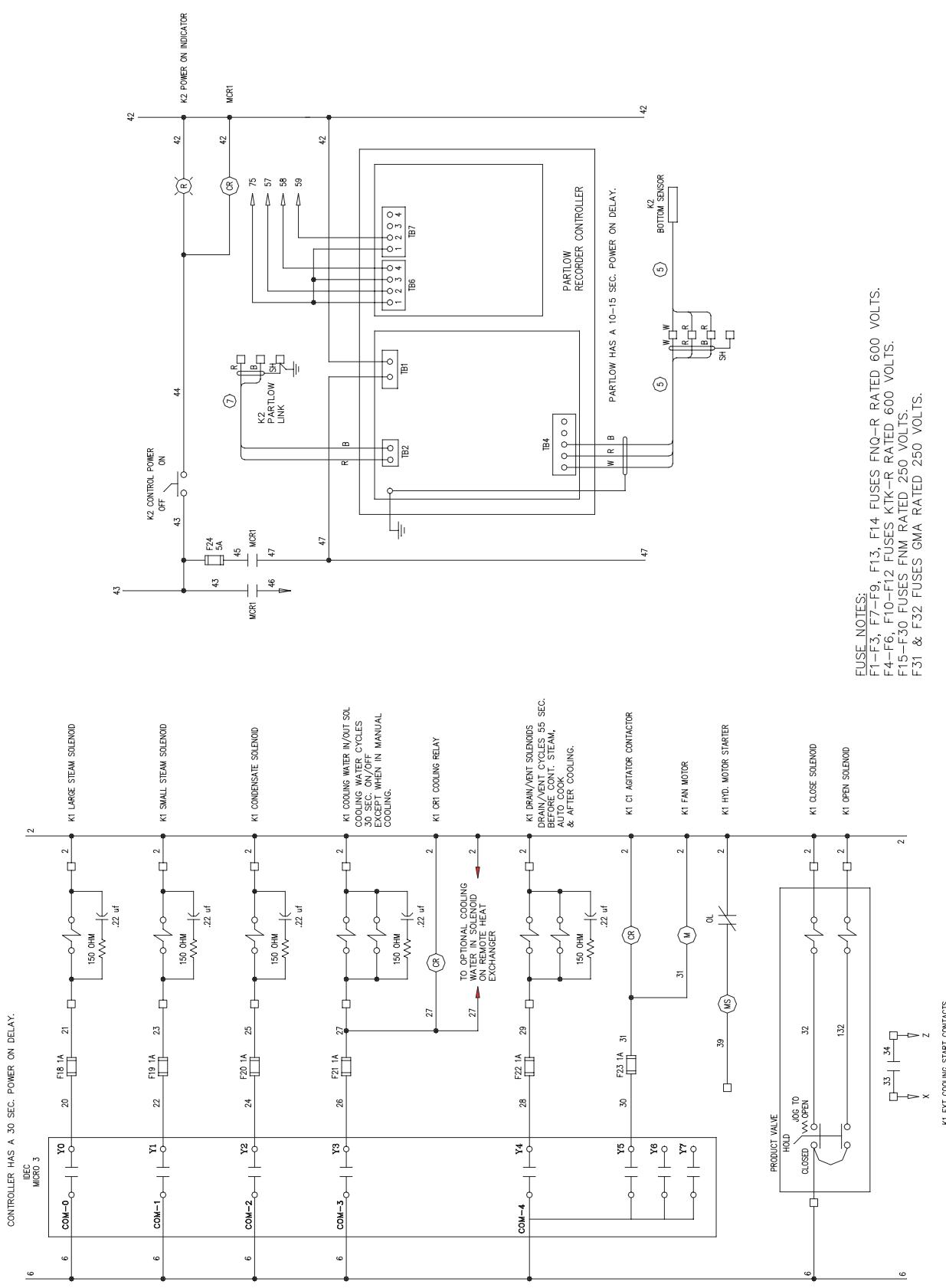


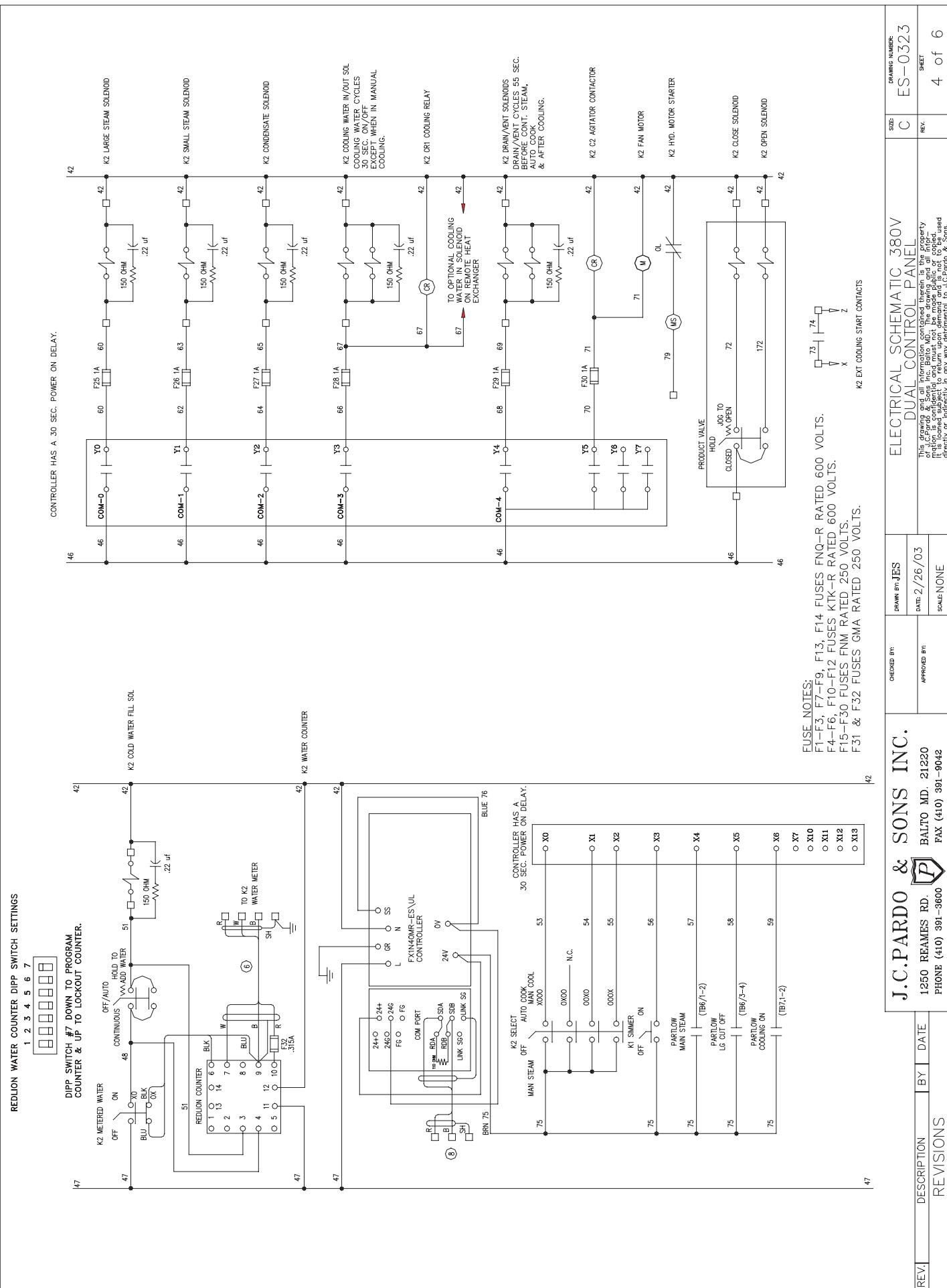


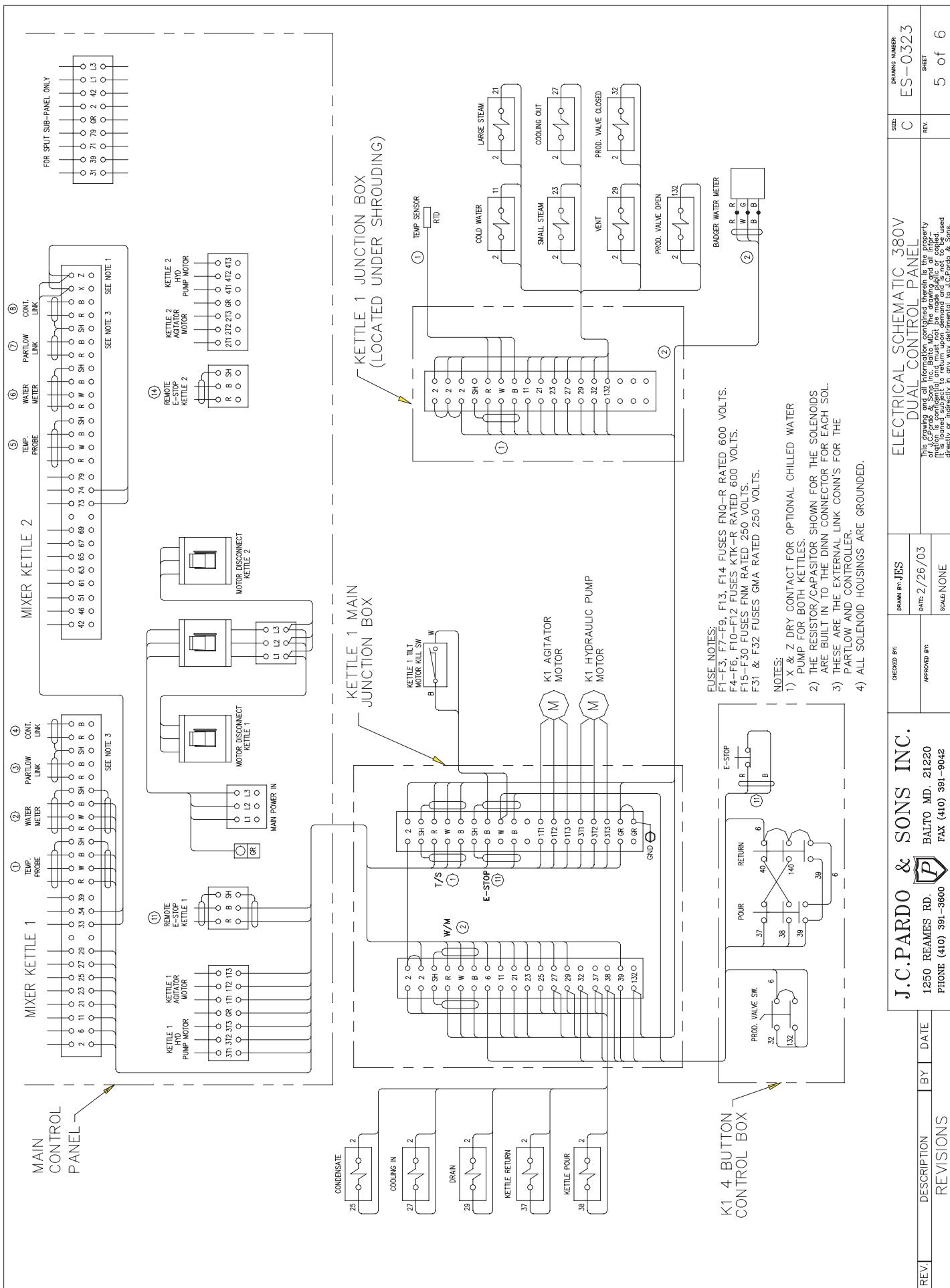


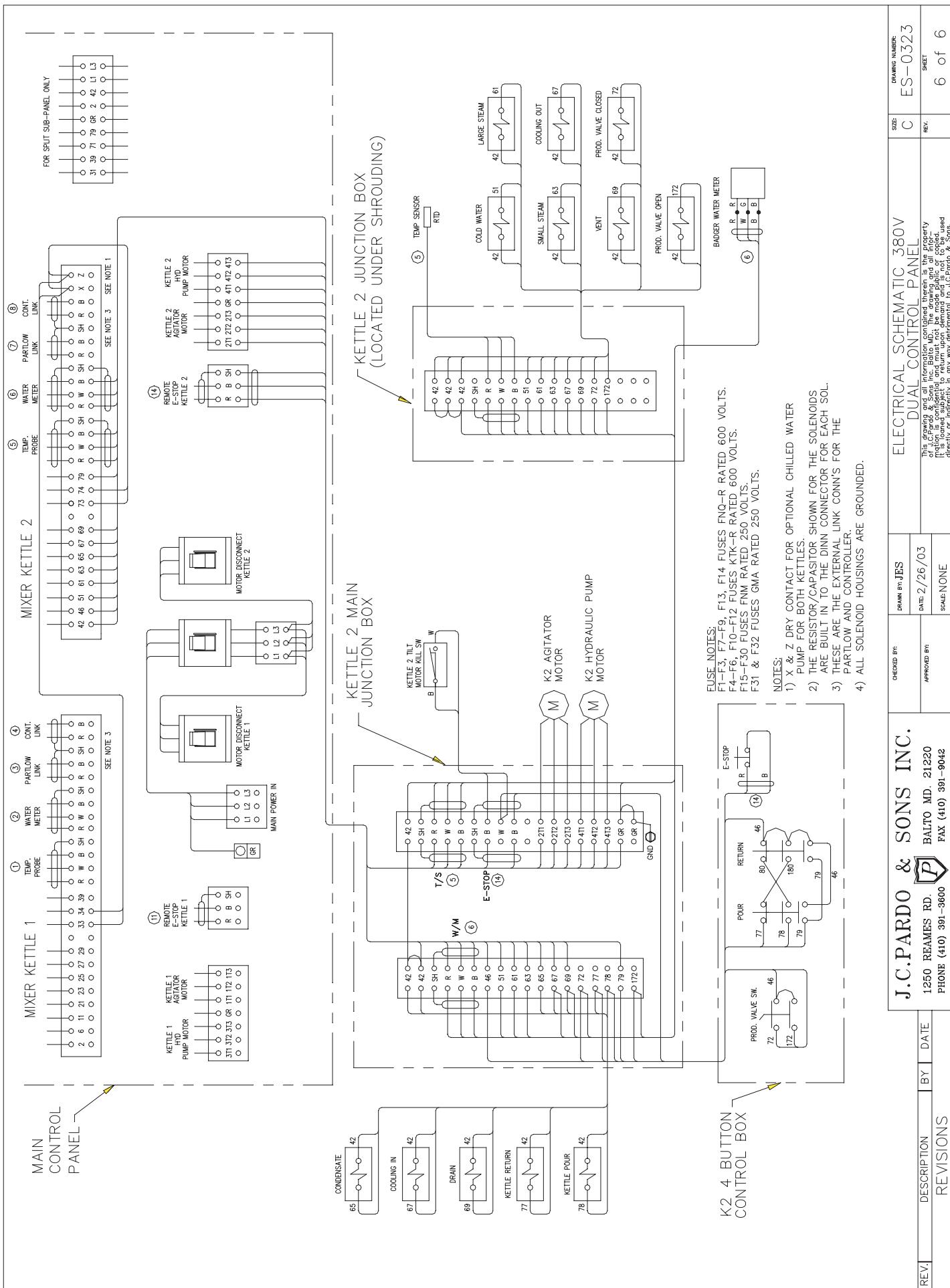












## FUSE CHART

| FUSE NO | TYPE  | VOLT | AMP      |
|---------|-------|------|----------|
| F1      | FNQ-R | 600  | 3 AMP    |
| F2      | FNQ-R | 600  | 3 AMP    |
| F3      | FNQ-R | 600  | 3 AMP    |
| F4      | KTK-R | 600  | 15 AMP   |
| F5      | KTK-R | 600  | 15 AMP   |
| F6      | KTK-R | 600  | 15 AMP   |
| F7      | FNQ-R | 600  | 3 AMP    |
| F8      | FNQ-R | 600  | 3 AMP    |
| F9      | FNQ-R | 600  | 3 AMP    |
| F10     | KTK-R | 600  | 15 AMP   |
| F11     | KTK-R | 600  | 15 AMP   |
| F12     | KTK-R | 600  | 15 AMP   |
| F13     | FNQ-R | 600  | 5 AMP    |
| F14     | FNQ-R | 600  | 5 AMP    |
| F15     | FNM   | 250  | 5 AMP    |
| F16     | FNM   | 250  | 5 AMP    |
| F17     | FNM   | 250  | 5 AMP    |
| F18     | FNM   | 250  | 1 AMP    |
| F19     | FNM   | 250  | 1 AMP    |
| F20     | FNM   | 250  | 1 AMP    |
| F21     | FNM   | 250  | 1 AMP    |
| F22     | FNM   | 250  | 1 AMP    |
| F23     | FNM   | 250  | 1 AMP    |
| F24     | FNM   | 250  | 5 AMP    |
| F25     | FNM   | 250  | 1 AMP    |
| F26     | FNM   | 250  | 1 AMP    |
| F27     | FNM   | 250  | 1 AMP    |
| F28     | FNM   | 250  | 1 AMP    |
| F29     | FNM   | 250  | 1 AMP    |
| F30     | FNM   | 250  | 1 AMP    |
| F31     | GMA   | 250  | .315 AMP |
| F32     | GMA   | 250  | .315 AMP |

FIELD WIRING MUST ENTER/EXIT BOTTOM  
OF ENCLOSURE OR THROUGH APPROVED FITTING.

J.C. PARDO AND SONS INC.

C.R. MODEL NO.: HA-DE-CC-2

J.C.P. MODEL NO.: FMCC-D2-K

SERIAL NO.: 8226

LARGEST MOTOR RATING: 3 H.P.

RATED VOLTAGE: 380 V.A.C.

PHASE: 3 PH

CYCLES: 50 HZ

FULL LOAD CURRENT: 18 AMPS

MINIMUM CIR. AMPACITY: 19 AMPS

MAXIMUM OVERCURRENT DEVICE: 25 AMPS

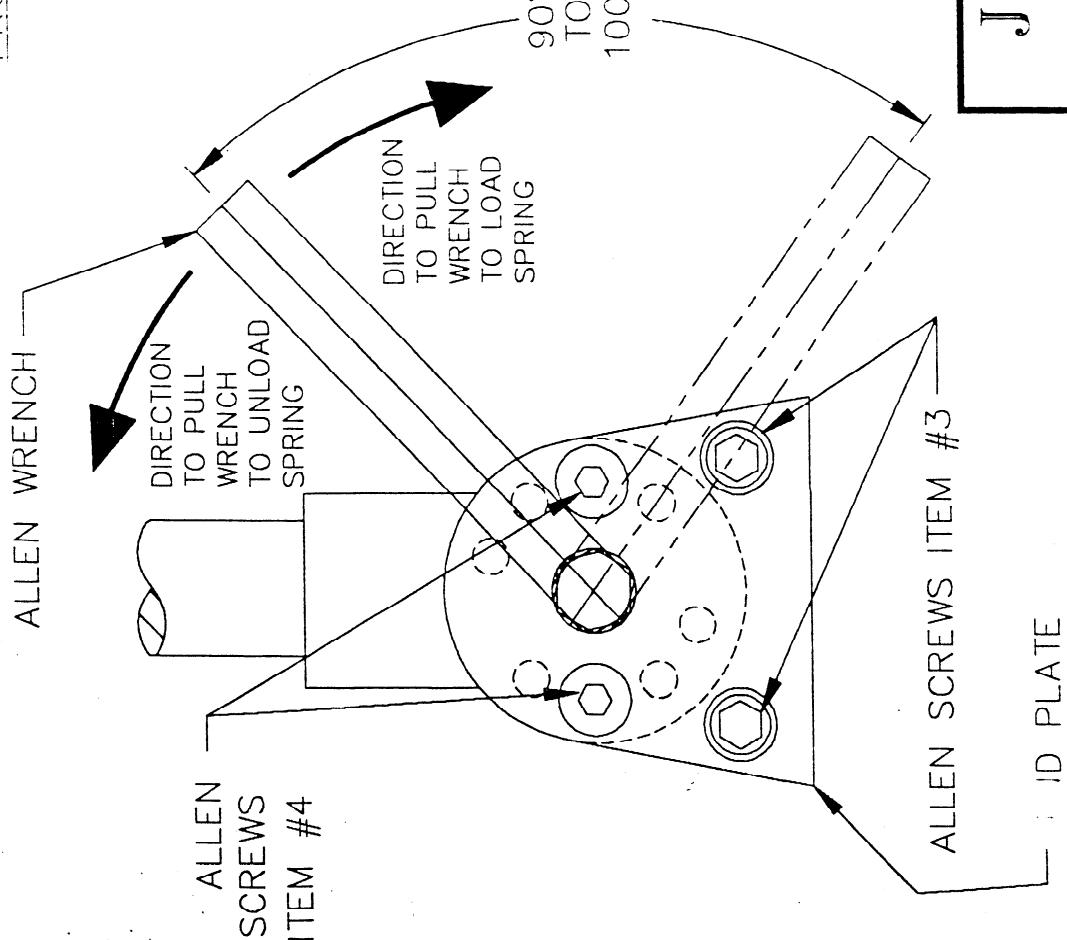
380V 3HP

PROCEDURE TO TIGHTEN SPRING IN LID ACTUATOR

1. MAKE SURE KETTLE LID IS IN THE UP POSITION
2. HOLD TENSION ON THE ALLEN WRENCH REMOVE THE ALLEN SCREWS ITEM #4.
3. PULL DOWN ON ALLEN WRENCH UNTIL THE 2nd SET OF HOLES APPEAR IN LINE. REINSTALL ALLEN SCREWS NOTE THE ALLEN WRENCH SHOULD TRAVEL 1/4 TURN (90° TO 100°)

PROCEDURE FOR REPLACING SPRING IN LID ACTUATOR

- A. MAKE SURE THE KETTLE LID IS IN THE UP POSITION AND PROPERLY SUPPORTED BEFORE REMOVING ANY ALLEN SCREWS.
- B. USING THE ALLEN WRENCH HOLD TENSION ON THE SPRING WHEN REMOVING THE ALLEN SCREWS ITEM #4 USING THE ALLEN WRENCH UNLOAD THE SPRING.
- C. CAREFULLY REMOVE THE ALLEN SCREWS ITEM #3 AND REMOVE THE END PLATE.
- D. REMOVE THE OLD SPRING AND CENTERING ROD
- E. GREASE NEW SPRING AND CENTERING ROD BEFORE INSTALLING THEM INTO HOUSING. NOTE USE CHESTERTON 622, USDA APPROVED, OR EQUIVALENT GREASE.
- F. REPLACE THE END PLATE AND REPLACE THE ALLEN SCREWS ITEM #3.
- G. USING THE ALLEN WRENCH TIGHTEN THE SPRING AND ALIGN THE HOLES REPLACE THE ALLEN SCREWS ITEM #4.



J.C. PARDO & SONS INC.



1250 REAMES RD. BALTO. MD. 21220

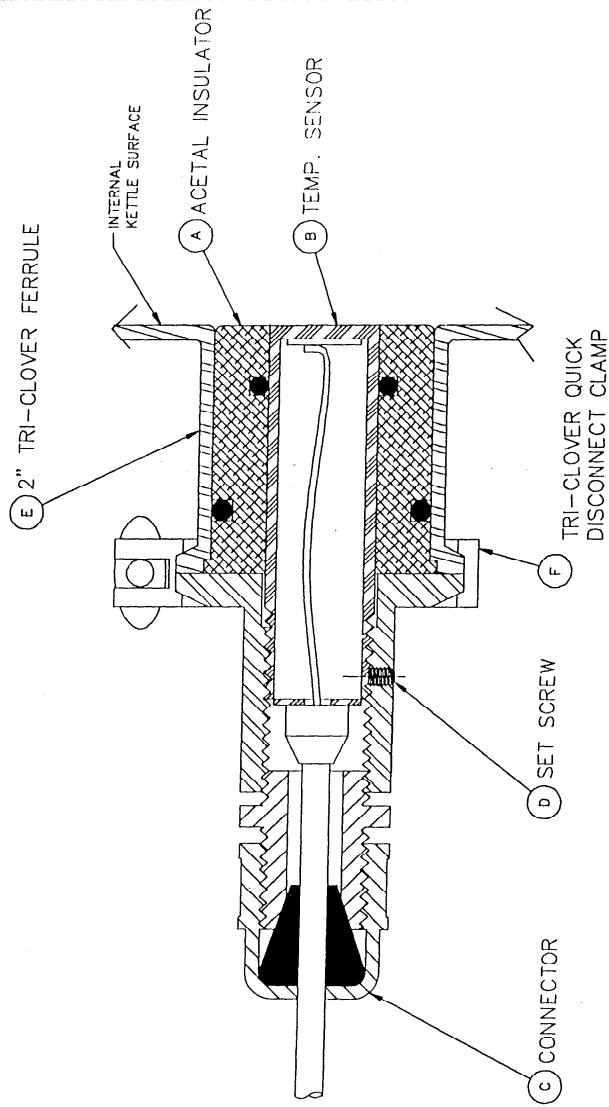
SCALE: NONE APPROVED BY: DRAWN BY:  
DATE: 5-16-94 TIM KAHL

ACTUATOR SPRING ADJUSTMENT AND  
REPLACEMENT DETAIL

SMALL ACTUATOR UP TO 100 GALLON KETTLES SIZE: A DRAWING NUMBER: 8545 REV: B

## INSTALLATION INSTRUCTIONS

1. INSERT PART "A" INTO KETTLE FERRULE PART "E" SO PART "A" IS FLUSH WITH INTERNAL KETTLE SURFACE  $\pm .000$  TO  $.032$  TO AVOID SCRAPER BLADE FROM INTERFERING WITH TEMPERATURE PROBE.
2. INSERT PART "B" ASSEMBLY INTO PART "A" AND ADJUST UNTIL SURFACE OF PART IS FLUSH WITH INTERNAL KETTLE SURFACE, SO THAT THE SCRAPER BLADE WILL WIPE THE SURFACE CLEAN. THIS MUST OCCUR TO OBTAIN AN ACCURATE TEMPERATURE READING FROM THE PROBE. FOR EASIER ADJUSTMENT OF PROBE, INSTALL O-RINGS AFTER ALL ADJUSTMENTS HAVE BEEN MADE.
3. AFTER STEPS 1 AND 2, INSTALL CLAMP "F" AND CHECK INTERNAL SURFACE WITH PROBE TO FIT THE ABOVE REQUIREMENTS. ADJUST, IF REQUIRED.
4. TIGHTEN BOTH SET SCREWS "D".
5. TIGHTEN CONNECTOR "C".
6. RUN WIRE TO JUNCTION BOX AND ATTACH TO BOX.
7. TEST TEMPERATURE PROBE TO SEE IF TEMPERATURE READING IS ACCURATE.



NOTE:  
USE CHESTERTON 622, USDA APPROVED  
OR EQUIVALENT ON O-RINGS BEFORE  
INSTALLATION.

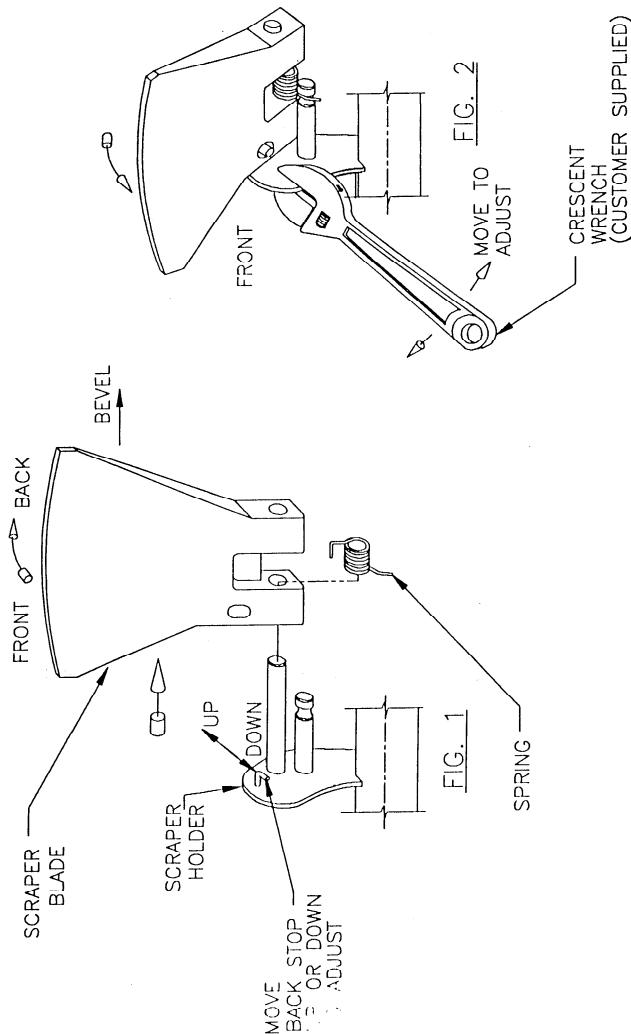
| JOB #   | QTY:             |
|---|------------------|
| J.C.PARDO & SONS INC.   |                  |
| 1250 REAMES RD.  | BALTO, MD. 21220 |
| DATE ISSUED: 4/27/95  | 2/1/97           |
| DATE DUE:        | Laurie York      |
| TEMPERATURE SENSOR  | INSTALLATION     |
| SHEET 1 OF 1  | C 8007 B         |

INSTALLATION OF NEW SCRAPER BLADE

WHEN INSTALLING A NEW SCRAPER BLADE THERE MAY BE SOME ADJUSTMENTS REQUIRED TO MAKE IT LAY FLAT TO FOLLOW THE CONTOUR OF THE KETTLE. IF THE BLADE DOES NOT FIT, YOU MAY HAVE TO GRIND EITHER THE TWO EDGES OF THE BLADE, OR THE CENTER OF THE BLADE (PER. DETAIL A).

NOTE # 1  
WHEN THERE IS TOO MUCH OR TOO LITTLE PRESSURE ON THE SCRAPER BLADE, BEND THE BACK STOP DOWN TO DECREASE THE PRESSURE OR BEND IT UP TO INCREASE THE PRESSURE ON THE BLADE WHEN SCRAPPING THE KETTLE SURFACE (PER. FIG. 1).

NOTE # 2  
IF ONLY ONE CORNER OF THE SCRAPER BLADE IS TOUCHING THE KETTLE SURFACE, USE A CRESCENT WRENCH AND SLIGHTLY TWIST THE SCRAPER HOLDER SO THE ENTIRE BLADE SCRAPES THE KETTLE WALL WITH EVEN PRESSURE.



DETAIL A

J□B #

|   |  |   |  |
|---|--|---|--|
| <p>THIS DRAWING AND ALL INFORMATION CONTAINED THEREIN IS THE PROPERTY OF J. C. PARDO &amp; SONS INC. BALTIMORE, MD.. THE DRAWING AND INFORMATION IS CONFIDENTIAL AND MUST NOT BE MADE PUBLIC OR COPIED. IT IS LOANED SUBJECT TO RETURN UPON DEMAND AND IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETERIMENTAL TO THE INTERESTS OF J. C. PARDO &amp; SONS INC.</p> |  | <p><b>J. C. PARDO &amp; SONS INC.</b></p>   |  |
|   |  | <p>1250 REAMES RD.  BALTIMORE, MD. 21220</p> <p>SCALE <input type="checkbox"/> NONE <input checked="" type="checkbox"/> 1/25/95 APPROVED BY <i>laurie yori</i> DRAWN BY <i>laurie yori</i></p> | <p>REPLACEMENT AND FITTING SCRAPER BLADE &amp; SPRING</p> <p>DRAWING NUMBER 8230 REV C</p> |
|   |  | <p>SHEET 1 of 1</p>   | <p>SIZE B</p>  |

## HORIZONTAL AGITATOR KETTLE OPERATIONS AND CLEANING INSTRUCTIONS

### CLEANING INSTRUCTIONS

As with all equipment that has electrical components, care must be exercised when using water and chemicals to clean food service equipment. Use a mild detergent following instructions of the chemical manufacturer. Do not spray water on electrical control panel or components. Do not use harsh or caustic chemicals, especially on o-rings and gaskets.

1. Rinse out food debris from the kettle and flush through the metering filling station (MFS or food pump) if they are still connected. If the kettle is not connected to the food pump, open the valve and allow rinse water to flush into the floor drain.
2. Remove agitator arm:
  - a. Rotate the agitator until the quick release pull pin is on the top.
  - b. Turn power to OFF as a safety precaution.
  - c. Pull pin out.
  - d. Slide coupling toward side of kettle.
  - e. Carefully lift end of agitator, pull back and lift out.
  - f. Remove bushing from shaft holder.
  - g. Remove scraper blades from agitator by using the spring removal tool provided with the kettle.
  - h. Wash agitator arm, scraper blades, and springs with mild dish detergent or in dish machine. Air dry.
3. Wash the inside of the kettle with a mild dish detergent as you would any pot or pan. Flush liquid through MFS or by opening the valve. Rinse thoroughly.
4. Remove the valve and tee from the bottom of the kettle by removing the clamp. Remove o-rings. Wash and dry thoroughly. When re-installing the valve, apply USDA approved food grade grease (Chesterton 622 or equal) to o-rings. Gently push tee and valve body in place and secure with clamps.
5. Clean outer drive shaft seal on the side of the kettle by removing thumb screws. Slide seal retainer plate and quad ring away from the kettle or shaft housing. Clean the shaft, seal and quad ring. Before re-installing, apply a liberal amount of USDA approved food grade grease to the opening around the shaft and slide quad ring back in place. Push the seal retainer place back in place and tighten with thumb screws.
6. Remove temperature sensor probe by removing clamp. Slide sensor out of seal holder. Remove o-rings. Clean sensor, seal and o-rings. Before re-installing, apply a liberal amount of USDA approved food grade grease on o-rings.

## **DAILY PRE-START UP**

1. The operator must check the kettle, springs and scraper blades for proper installation before turning kettle on.
2. Make sure the connecting coupling from the drive shaft to the agitator is properly installed with the quick release pin fully engaged.
3. Label and place clean chart on chart recorder.

If the above cannot be achieved, call your maintenance supervisor or service contractor before proceeding.

## **OPERATING INSTRUCTIONS HORIZONTAL MIXER KETTLE**

Your kettle has been equipped with a control panel that has some or all of the following functions:

1. Main POWER switch
2. Temperature control
3. 24 hour chart recorder
4. KETTLE RUN push button
5. Agitator speed control with variable settings
6. Agitator STOP/START
7. Potable water meter with OFF/ON switch and push button to add water
8. Manual COOL water switch
9. Kettle selector switch for CONTINUOUS, OFF, COOK
10. SIMMER switch
11. Product VALVE OPEN/CLOSED

### **Operating the Kettle**

1. To operate the system the main power switch on the control panel must be turned on. The temperature control computer will run through its diagnostics for about one minute.
2. To set desired temperature, turn switch to COOK. This activates the temperature controller. The temperature display and the actual temperature will appear. To change the temperature set point, press the push button with “+” to raise or increase the temperature or press the button with “-“ to decrease or lower the temperature.
3. Push the button marked KETTLE RUN and the steam will come on to heat the kettle and its contents until the set point temperature is reached. It will cycle off and on to maintain the set point temperature.
4. To start the agitator, press the button marked AGITATOR START and a green light will indicate the agitator is on.
5. To stop the agitator, press the red AGITATOR STOP mushroom button.
6. To change the speed of the agitator, turn the SPEED CONTROL knob to the right to increase the speed or to the left to decrease the speed. As a safety precaution, always turn the speed to “0” when kettle is not in use and before use.

- 
- 7. To add ingredients to the kettle, push AGITATOR STOP button. Steam heating will continue in the jacket and the agitator must be started again as soon as possible or product might burn on the surface of the kettle.
- 8. CONTINUOUS STEAM is a manual override allowing steam into the kettle but with no temperature control.
- 9. SIMMER allows maintenance to the set point temperature but gently introduces heat into the kettle.

Ready to pump food out of kettle

- 1. Foods must be cooked to a minimum of 165°F to kill dangerous pathogens and must be at least this temperature when it casings are filled. Set temperature on the control panel to at least 165°F before pumping.
- 2. Pump food through MFS to heat hoses and MFS parts until at least 165°F can be maintained when product exits the MFS. Product may be poured back into the kettle for reheating before pumping.
- 3. Put down cover of kettle to maintain heat and to maintain a moist atmosphere in the kettle which will make cleaning easier.
- 4. Empty the kettle as quickly as possible to prevent over-cooking of product and to maintain quality, consistency and temperature.
- 5. Temperature may be turned OFF or placed on SIMMER when kettle product reaches the steam jacketed area to reduce chances of burning while pumping.

To cool and blend products without heat

- 1. Turn the main power switch to ON.
- 2. Turn the MANUAL WATER COOLING switch to ON. This will start the flow of cold water from the ice builder into the jacket of the kettle. When in this mode the temperature controller will read the temperature of the product only and serve no other function.
- 3. When cooking a product that is too hot, MANUAL COOLING can be used. Turn on MANUAL COOLING. When sufficient cooling has been achieved, turn the switch off. The kettle jacket will drain and steam will automatically come on to continue cooking if the set point has not been lowered.

To add Potable water to the kettle

- 1. Faucet handle must be completely open and the main power must be on.
- 2. Set point the volume of water needed by changing the digits on the meter.
- 3. Turn METERED WATER switch to ON. Water will begin filling the desired number of gallons and stop automatically. The amount of water that has been metered can be read above the set point.
- 4. Additional water may be metered by resetting meter and will accumulate on the meter as long as it is not turned off.
- 5. Additional water may be added by pressing the black button marked PUSH TO ADD MORE WATER.

## **PREVENTIVE MAINTENANCE**

### **COOK/CHILL MIXER & PASTA KETTLES**

#### **A. AUTOMATIC DUMP VALVE**

##### **Weekly**

- Check air collector regulator for moisture, dirt, and proper pressure
- Check all o-rings and seals and gaskets
- Check valve operation
- Lubricate with light oil when needed
- Check air hose for leaks or signs of wear

#### **B. TILT MECHANISM ( Hydraulic Tilt )**

##### **Weekly**

- Check for leaks
- Check for smooth operation
- Check switches

##### **Yearly**

- Change hydraulic fluid every two years. (1 1/2 gallons of **FOOD GRADE** hydraulic fluid) ( Shell Telis #5 )

##### **( Electric Tilt )**

##### **Weekly**

- Check for smooth operation
- Check switches

##### **Monthly**

- Check for movement in mechanism
- Grease trunnions monthly ( **Food Grade Grease** )

#### **C. AIR PRESSURE**

##### **Weekly**

- 45 psi dump valve - 15 psi for jacket purge
- Air must be clean and dry
- Check all air lines & fittings for leaks

#### **D. STEAM TRAP**

##### **Monthly**

- Check proper operation

## **PREVENTIVE MAINTENANCE**

### **COOK/CHILL MIXER & PASTA KETTLES (continued)**

#### **E. SAFETY VALVE**

##### **Weekly**

- Check for leakage
- Steam pressure 65 psi. max.
- Safety set at 100 psi.

#### **F. LEAKS**

##### **Weekly**

- Check for leaks of any type ( water - steam - hydraulic )  
( **Leaks take away from performance and will lead to costly repair** )

#### **G. Control Panels**

##### **Weekly**

- Signs of water damage
- Check operation of all controls
- Water meter operation
- Temp read outs
- Temp charting
- Temp controlling
- RTD adjustments
- Mixer operation & speed control
- Gentle heat operation
- product valve operation

## HAMKDL- 60 – CC-T

- Make sure kettle is level, equipment can move as floors settle
- Make sure kettle is bolted securely to floor, bolts may loosen after time
- Check the incoming power and amp draws (per rating plate)
- Check incoming air pressure (1" line 1cfm @ 90psi.)
- Check air pressure regulator/collector for draw off valve (45psi.)
- Check air pressure regulator for kettle jacket purge (15psi.)
- Check air collector regulator for moister, dirt (Must be clean & dry)
- Check all o-rings and shaft seal for wear and proper lubrication
- Check the installation 3" Flush Piston Draw Off Valve
- Check all air hoses for leaks and signs of wear
- Check incoming steam pressure (3/4"line / 320PPM / 65psi.)
- Check the steam trap for proper operation (clean or replace if needed)
- Check the operation of safety valve 100psi. rating
- Check for steam leaks (Inlets and Returns)
- Check for the proper clearance where drive shaft penetrates the kettle
- Make sure temperature sensor is properly installed
- Check chill water supply and return lines for leaks.
- Check the control panel for any signs of corrosion moisture
- Check the complete operation of all kettle controls
- Check the mixer operation (Speed control, Emergency stop)
- Check the idler bearing and idler busing for wear
- Check the kettle tilt (up and down)
- Check hydraulic fluid level
- Check hydraulic lines for leaks and signs of wear
- Change hydraulic fluid yearly (ISO 46 20 weight Food Grade)
- Grease tilt mechanism monthly (Food grade grease)
- Check the operation of 3" Flush Piston Draw Off Valve
- Check water meter operation
- Make sure the Partlow chart recorder/controller is controlling, reading, and charting correctly
- Check the cooking operation in both automatic and in manual modes
- Check the operation of gentle heat mode
- Check the operation of the chill mode
- Check kettle cover hinge tension and fasteners

## **HA-MKDL-100-CC-T**

- Make sure kettle is level, equipment can move as floors settle
- Make sure kettle is bolted securely to floor, bolts may loosen after time
- Check the incoming power and amp draws (per rating plate)
- Check incoming air pressure (1" line 1cfm @ 90psi.)
- Check air pressure regulator/collector for draw off valve (45psi.)
- Check air pressure regulator for kettle jacket purge (15psi.)
- Check air collector regulator for moister, dirt (Must be clean & dry)
- Check all o-rings and shaft seal for wear and proper lubrication
- Check the installation 3" Flush Piston Draw Off Valve
- Check all air hoses for leaks and signs of wear
- Check incoming steam pressure (3/4"line / 320PPM / 65psi.)
- Check the steam trap for proper operation (clean or replace if needed)
- Check the operation of safety valve 100psi. rating
- Check for steam leaks (Inlets and Returns)
- Check for the proper clearance where drive shaft penetrates the kettle
- Make sure temperature sensor is properly installed
- Check chill water supply and return lines for leaks.
- Check the control panel for any signs of corrosion moisture
- Check the complete operation of all kettle controls
- Check the mixer operation (Speed control, Emergency stop)
- Check the idler bearing and idler busing for wear
- Check the kettle tilt (up and down)
- Check hydraulic fluid level
- Check hydraulic lines for leaks and signs of wear
- Change hydraulic fluid yearly (ISO 46 20 weight Food Grade)
- Grease tilt mechanism monthly (Food grade grease)
- Check the operation of 3" Flush Piston Draw Off Valve
- Check water meter operation
- Make sure the Partlow chart recorder/controller is (controlling, reading, and charting correctly)
- Check the cooking operation in both automatic and in manual modes
- Check the operation of gentle heat mode
- Check the operation of the chill mode
- Check kettle cover hinge tension and fasteners

## **HA-MKDL-200-CC-T**

- Make sure kettle is level, equipment can move as floors settle
- Make sure kettle is bolted securely to floor, bolts may loosen after time
- Check the incoming power and amp draws (per rating plate)
- Check incoming air pressure (1" line 1cfm @ 90psi.)
- Check air pressure regulator/collector for draw off valve (45psi.)
- Check air pressure regulator for kettle jacket purge (15psi.)
- Check air collector regulator for moister, dirt (Must be clean & dry)
- Check all o-rings and shaft seal for wear and proper lubrication
- Check the installation 3" Flush Piston Draw Off Valve
- Check all air hoses for leaks and signs of wear
- Check incoming steam pressure (3/4"line / 320PPM / 65psi.)
- Check the steam trap for proper operation (clean or replace if needed)
- Check the operation of safety valve 100psi. rating
- Check for steam leaks (Inlets and Returns)
- Check for the proper clearance where drive shaft penetrates the kettle
- Make sure temperature sensor is properly installed
- Check chill water supply and return lines for leaks.
- Check the control panel for any signs of corrosion moisture
- Check the complete operation of all kettle controls
- Check the mixer operation (Speed control, Emergency stop)
- Check the idler bearing and idler busing for wear
- Check the kettle tilt (up and down)
- Check hydraulic fluid level
- Check hydraulic lines for leaks and signs of wear
- Change hydraulic fluid yearly (ISO 46 20 weight Food Grade)
- Grease tilt mechanism monthly (Food grade grease)
- Check the operation of 3" Flush Piston Draw Off Valve
- Check water meter operation
- Make sure the Partlow chart recorder/controller is (controlling, reading, and charting correctly)
- Check the cooking operation in both automatic and in manual modes
- Check the operation of gentle heat mode
- Check the operation of the chill mode
- Check kettle cover hinge tension and fasteners

## **HA-MKDL-300-CC-T**

- Make sure kettle is level, equipment can move as floors settle
- Make sure kettle is bolted securely to floor, bolts may loosen after time
- Check the incoming power and amp draws (per rating plate)
- Check incoming air pressure (1" line 1cfm @ 90psi.)
- Check air pressure regulator/collector for draw off valve (45psi.)
- Check air pressure regulator for kettle jacket purge (15psi.)
- Check air collector regulator for moister, dirt (Must be clean & dry)
- Check all o-rings and shaft seal for wear and proper lubrication
- Check the installation 3" Flush Piston Draw Off Valve
- Check all air hoses for leaks and signs of wear
- Check incoming steam pressure (3/4"line / 320PPM / 65psi.)
- Check the steam trap for proper operation (clean or replace if needed)
- Check the operation of safety valve 100psi. rating
- Check for steam leaks (Inlets and Returns)
- Check for the proper clearance where drive shaft penetrates the kettle
- Make sure temperature sensor is properly installed
- Check chill water supply and return lines for leaks.
- Check the control panel for any signs of corrosion moisture
- Check the complete operation of all kettle controls
- Check the mixer operation (Speed control, Emergency stop)
- Check the idler bearing and idler busing for wear
- Check the kettle tilt (up and down)
- Check hydraulic fluid level
- Check hydraulic lines for leaks and signs of wear
- Change hydraulic fluid yearly (ISO 46 20 weight Food Grade)
- Grease tilt mechanism monthly (Food grade grease)
- Check the operation of 3" Flush Piston Draw Off Valve
- Check water meter operation
- Make sure the Partlow chart recorder/controller is(controlling, reading, and charting correctly)
- Check the cooking operation in both automatic and in manual modes
- Check the operation of gentle heat mode
- Check the operation of the chill mode
- Check kettle cover hinge tension and fasteners